

PONY
ICT
Part
2
الملحق المجاني
طبقًا لآخر التعديلات
الوزارية
First Term
6th
Primary
By
Eng. Osama Youssef



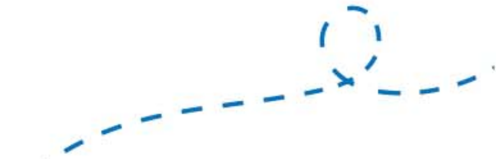
Contents of Part 2

Theme 1 Role of ICT in Our Life



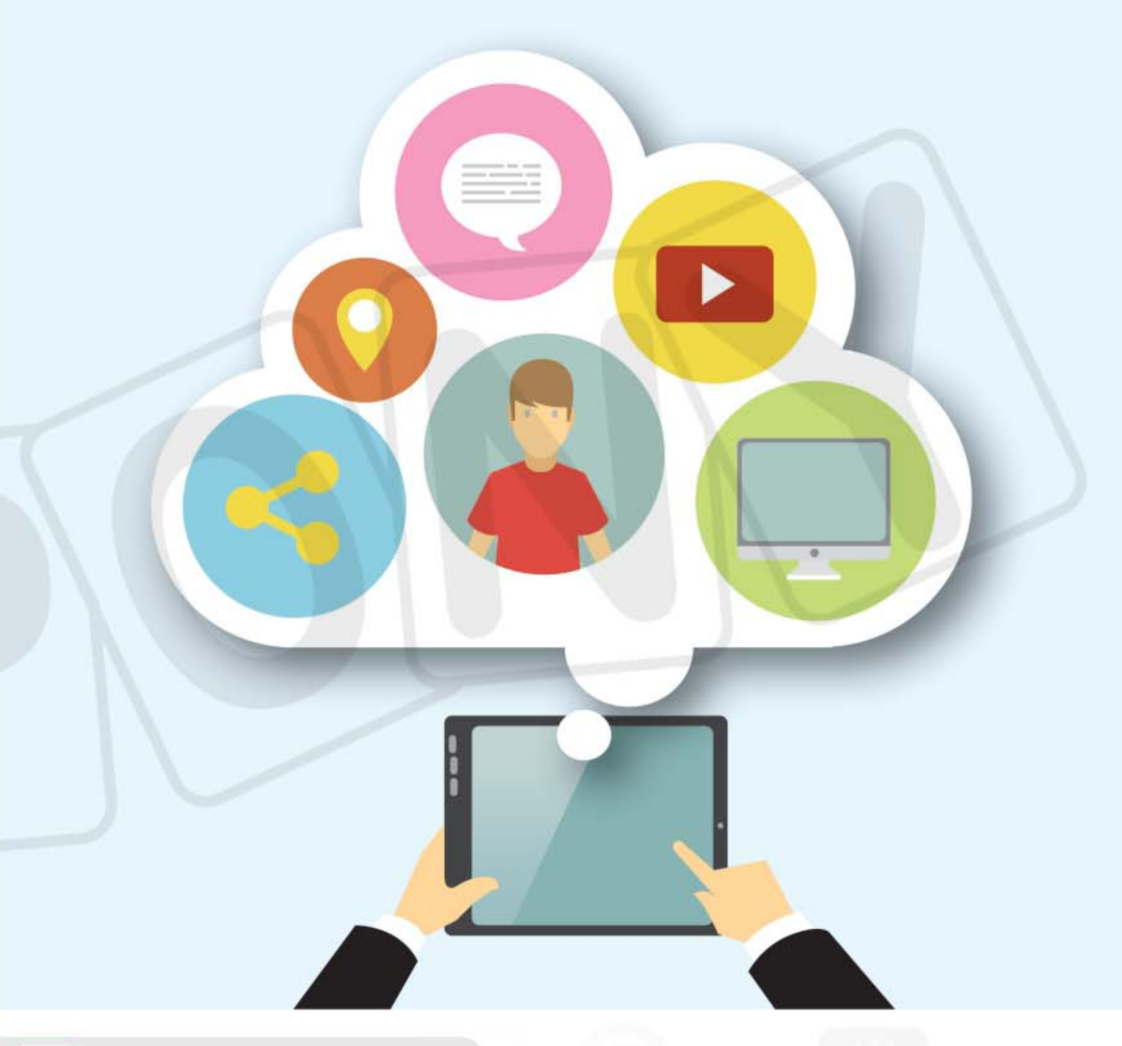
Theme 2 Digital Safety and Security Precautions





Theme 1

Role of ICT in Our Life



Theme Lessons:

Lesson 1 Explorer in Action

Lesson 2 Computer Network Devices

Spotlight on Theme 1

In this theme, you will learn about the mechanisms to deal with ICT (Information and Communication Technology) in order to cope with the latest technological developments.

This includes identifying the operating systems for devices, such as mobile devices and PCs.

You will also create the concept and plan a website that promotes a cutting-edge assistive technology product.



Lesson 1 Explorer in Action

Just for Read

Mr. Kartik Sawhney

- Mr. Kartik Sawhney is a National Geographic Explorer and a computer expert.
- He uses technology to empower people of determination.
- He earned his Bachelor's and Master's degrees in Computer Science at Stanford University, California, in the USA.
- His studies focused on:
  1. Artificial intelligence (AI).
  2. Human-computer interaction.

• السيِّد كارتيك ساوهني هو مُستكشف نَشِط في ناشونال جيوجرافيك، وهو خبير بالكمبيوتر.

• يَستخدم ساوهني التكنولوجيا لتمكين الأشخاص من ذوي الهِمَم.

• حصل على شهادتَي البكالوريوس والماجستير في علوم الكمبيوتر من جامعة ستانفورد بكاليفورنيا في الولايات المتحدة الأمريكية.

• وقد ركَّزت دراسته على الذكاء الاصطناعي والتفاعل بين الإنسان وأجهزة الكمبيوتر.

- Mr. Sawhney creates applications that provide access to visual content for the blind and visually impaired.
- His app converts graphs into audio frequencies, allowing the listener to hear the difference in information in the graph.

• يبتكر السيِّد ساوهني تطبيقات تسمح للأشخاص المكفوفين وضعاف البصر بالوصول إلى المحتوى المرئي.

• يقوم تطبيقه بتحويل الرسوم البيانية إلى تردُّدات صوتية؛ مما يسمح للمستمع أن يسمع الاختلاف في المعلومات بالرسم البياني.



How does Mr. Sawhney help people of determination



» There are over one billion people of determination worldwide. To help them, Mr. Sawhney co-founded istemai.com.

» I-Stem (istemai.com): It's a platform that provides software that changes digital texts into a format that can be easily used by the blind and visually impaired.

1. A person who can't read a text might upload that text to the I-Stem website.
2. The software converts the file into a Word document.
3. A few minutes later, the person receives the converted document and listens to the text using a screen reader, which automatically reads the text aloud.



- يوجد أكثر من مليار شخص من ذوي الهِمَم حول العالم. ولكي يساعدهم شارك ساوهني في تأسيس I-Stem (استماعي).
- I-Stem: هي مِنَصَّة تُقدِّم برنامجًا يُغيِّر النصوص الرقمية إلى صيغة يمكن استخدامها من قِبَل المكفوفين وضعاف البصر بسهولة.

1. يمكن للشخص الذي لا يستطيع قراءة النص أن يُحمِّل ذلك النص إلى موقع I-Stem.
2. يُحوِّل البرنامج الملف إلى مستند ببرنامج Word.
3. بعد دقائق قليلة، يتلقَّى الشخص المستند المُحوَّل ويستمع إلى النصِّ باستخدام قارئ الشاشة الذي يقرأ النصَّ بصوت عالٍ بصورة تلقائية.

Other benefits of I-Stem for people of determination:

» The I-Stem platform (istemai.com) also includes mentorship and employment opportunities for people of determination.

» This is achieved by working closely with governments, technical universities, and corporations.

» The platform is supported by UNICEF, Microsoft, and the National Geographic Society, among other partner organizations. This makes it easier for people of determination to access the services and venues of the organizations.

- تتضمَّن مِنَصَّة I-Stem أيضًا فُرَصًا للإرشاد والتوظيف للأشخاص من ذوي الهِمَم.
- ويتحقَّق ذلك من خلال العمل عن كَثَب مع الحكومات والجامعات التكنولوجية والمؤسَّسات.
- المنصة مدعومة من اليونيسيف، ومايكروسوفت، ومجتمع ناشونال جيوجرافيك، بالإضافة إلى المنظَّمات الشريكة الأخرى، وهذا يُسهِّل على ذوي الهِمَم الوصول إلى خدمات وأماكن المنظمات.







Theme 1

Volunteer mentors can help people of determination with:
يوجد مدربون متطوعون يمكنهم مساعدة ذوي الهِمَم في الآتي:

1. **Resume writing** — كتابة السيرة الذاتية
2. **Job interviews preparation** — التحضير لمقابلات العمل
3. **Career-related questions** — الأسئلة المُتعلِّقة بالعمل

Egypt's Efforts for People of Determination

- Egypt supports people of determination in many settings.
  1. To assist the visually impaired, the Taha Hussein Library in the New Bibliotheca Alexandrina has scanners with special software that converts printed text into audio.
  2. Scholarships and special opportunities are offered to gifted individuals, such as "The Miracle Child" Rania Saleh, who is a talented computer programmer with Down Syndrome.
  3. In 2022, Egypt launched several initiatives to empower Egyptians people of determination.
- These initiatives guide organizations to integrate employees of determination in the workforce and create job opportunities.
- In addition, the Ministry of Manpower is developing programs that educate and train people of determination for the job market.

• **تدعم مصر الأشخاص من ذوي الهِمَم في العديد من الأماكن:**

1. مِن أجل مساعدة ضعاف البصر، تحتوي مكتبة طه حسين في مكتبة الإسكندرية على ماسحات ضوئية تتضمَّن برامج خاصة تُحوِّل النص إلى صوت.
2. يتم تقديم المنح والفرص المميزة للأفراد الموهوبين، مثل «الطفلة المعجزة» رانيا صالح، وهي مبرمجة كمبيوتر ماهرة مصابة بمتلازمة داون.
3. في سنة ٢٠٢٢، أطلقت مصر عدَّة مبادرات لتمكين المواطنين المصريين من ذوي الهمم.

• تُرشد تلك المبادرات المنظَّمات لدمج الموظفين من ذوي الهمم بالقوى العاملة وإنشاء فُرَص عمل لهم.

• إضافة إلى ذلك، تُطوِّر وزارة القوى العاملة برامج لتعليم الأشخاص من ذوي الهمم وتدريبهم لسوق العمل.

Mobile Phone

- Using a mobile phone can be difficult for people with **hearing-impaired** people.
- there are **apps** that use **speech-to-text** technology to make communication by mobile phone easier.
- Usually during calls, the hearing-impaired person talks whereas the other person only listens.
- Now there are apps that use voice recognition technology to change speech to text in real-time. The text appears while the person is talking.
- If the hearing-impaired people have speech problems, they can type instead, The text is delivered to the other person as real speech.
- an example on these Apps is Rogervoice.
- People with hearing impairments can download and use the app on their smartphones. However, the recipients of the calls are not required to install the app or even own a smartphone



- Rogervoice has been downloaded by over 50.000 people worldwide.

- قد يكون استخدام الهاتف المحمول أمرًا صعبًا بالنسبة للأشخاص الذين يعانون من ضعف السمع.
- هناك تطبيقات تَستخدم تقنية تحويل الكلام إلى نص؛ لتسهيل الاتصال عبر الهاتف المحمول.
- إذا كان الأشخاص ضعاف السمع يعانون من مشاكل في النطق، فيمكنهم الكتابة بدلاً من ذلك، ويتم تسليم النص إلى الشخص الآخر ككلام حقيقي.
- يعتبر تطبيق Rogervoice مثالاً على هذه التطبيقات.
- يمكن للأشخاص الذين يعانون من ضعف السمع تنزيل التطبيق واستخدامه على هواتفهم الذكية. ومع ذلك، غير مطلوب من متلقي المكالمات تثبيت التطبيق أو حتى امتلاك هاتف ذكي.
- تم تنزيل Rogervoice من قبل أكثر من 50000 شخص حول العالم.

There are many websites and apps that help people of determination, such as:

1 accessnow.com

- It provides information and resources related to accessibility for people with disabilities.



• يُوفِّر المعلومات والموارد المتعلقة بإمكانية الوصول للأشخاص ذوي الإعاقة.

2 Bemyeyes.com

- It is a website and mobile application that aims to connect **blind** or **visually impaired people** with sighted volunteers through video calls.





• هو موقع إلكتروني وتطبيق للهاتف المحمول يهدف إلى ربط المكفوفين أو ضعاف البصر مع المتطوعين المبصرين من خلال مكالمات الفيديو.

Exercises on Lesson 1

1 Choose the correct answer:

1. Mr. Kartik Sawhney is a/an ....
   a. explorer   b. computer expert   c. both of them
2. Mr. Sawhney co-founded .... platform to help people of determination.
   a. I-Access   b. I-Stem   c. I-Determination
3. Mr. Kartik Sawhney uses technology to empower ....
   a. people of determination   b. computer engineers   c. students
4. Kartik Sawhney studies .... in his Bachelor's and Master's degree.
   a. Computer Hardware   b. Computer Science   c. Science
5. There are mobile apps that use .... technology to help hearing-impaired people communicate easily.
   a. artificial intelligence   b. speech-to-text   c. GPS
6. "The Miracle Child" Rania Saleh is a talented .... with Down Syndrome.
   a. doctor   b. explorer   c. programmer
7. Mr. Kartik Sawhney holds a Master's degree in Computer Science from .... University.
   a. Cairo   b. Stanford   c. Chicago
8. Kartik Sawhney's studies focused on ....
   a. human-computer interaction
   b. artificial intelligence   c. Both of them
9. The .... website includes mentorship and employment opportunities for people of determination.
   a.EKB   b. I-Stem   c. Facebook

10 Mr. Sawhney's app converts graphs into .... frequencies to allow the listener to hear the difference in information in the graph.

a. audio   b. video   c. text

11 Mr. Sawhney develops applications to help .... people access visual content.

a. blind& visually impaired   b. physically disabled   c. deaf

12 Taha Hussein Library has a special .... to convert printed text into audio.

a. keyboard   b. scanner   c. printer

13 .... app uses speech-to-text technology to assist people with hearing impairments to communicate easily using smart phones.

a. Derbitracker   b. WhatsApp   c. Rogervoice

14 When blind and visually impaired people upload a text to the I-Stemai platform, they can listen to the text using ....

a. braille terminal   b. screen readers

c. Screen magnification software

2 Put (✓) or (✗):

1 Kartik Sawhney is a computer expert. (   )

2 Mr. Sawhney develops apps to help people of determination access visual content. (   )

3 Kartik Sawhney earned his Master's degree from Harvard University. (   )

4 Taha Hussein Library has printers that convert printed text into audio. (   )

5 Mr. Sawhney develops an app that converts graph to audio frequencies. (   )

6 Kartik Sawhney studies Computer Science and focuses on artificial intelligence. (   )

7 The Miracle Child" Rania Saleh" is a programmer with Down Syndrome. ( )

8 The I-Stem platform includes employment opportunities for people of determination. ( )

9 Mr. Sawhney cofounded that I-Stem platform to help people of determination worldwide. ( )

10 Egypt launched several initiatives to empower people of determination and create job opportunities for them. ( )

11 Kartik Sawhney is a computer expert who uses technology to teach computer science. ( )

12 The I-Stem platform works with governments, and technical universities to support people of determination. ( )

13 The Ministry of Manpower is developing programs that prepare people of determination for the job market. ( )

3 Complete the following sentences using the words between the brackets:

(screen reader – I-Stem – Bemyeyes.com – graph – Artificial Intelligence)

1 Mr. Kartik Sawhney studies focused on .... and Human-computer interaction.

2 The .... platform connects blind or visually impaired people with sighted volunteers through video calls.

3 Mr. Kartik Sawhney creates apps that allow people to hear the difference in information in ....

4 .... converts digital text to audio.

5 Mr. Sawhney cofounded ....

Lesson 2 Computer Network Devices

Networks



- They are groups of people or things that are connected to each other for a common purpose.
  - تُمثِّل مجموعة من الأشخاص أو الأشياء المرتبطة ببعضها لهدف مشترك.

- Computers need different **networks connection devices** to transfer data, such as:

Modem



- It is **a device** that connects a local area network (**LAN**) to **the internet**.
- It converts and transforms the signal from the internet service provider (**ISP**) into a **digital signal** that can be read by devices.
  - هو جهاز يُوصِّل شبكة محلِّية (LAN) بالإنترنت .
  - يُحوِّل الإشارة من مزوِّد خدمة الإنترنت (ISP) إلى إشارة رقمية يمكن للأجهزة التعرُّف عليها.

Switches



- They can send data to a **specific device** over a network, which makes connections **easier** and **faster**.
- **Switches** are **intelligent** devices.
  - يمكنها إرسال بيانات إلى جهاز مُعيَّن عبر شبكة؛ وذلك يساعد في تيسير التواصل وإسراعه.
  - المحولات أجهزة ذكية.

Router



- **As we studied in Grade 5,**
  - It works as a **gateway** (Connect computers to the ISP).
  - It connects a **modem** to **different networks**.
  - يعمل الراوتر بمثابة بوابة لتوصيل الكمبيوتر بمزود خدمة الإنترنت.
  - وهو يربط بين المودم ومختلف الشبكات.

Making Connections

There are two main ways to connect computers to a network:

1 Wired Networks	2 Wireless Networks
• They use physical wiring and cables which are plugged into holes on devices, called ports. • تستخدم الأسلاك والكابلات التي يتم توصيلها بفتحات في الأجهزة تُسمى المنافذ.	• They connect devices without wiring through wireless or Wi-Fi. • تقوم بتوصيل الأجهزة بدون أسلاك من خلال التوصيل اللاسلكي أو Wi-Fi.

Artificial Intelligence (AI)

- It is computer applications that perform complex tasks that simulate the thinking and performance of the human element, such as the ability to learn and reason.
- By providing these technologies with information, knowledge and possible answers to all possible questions, the machine can give answers to the data provided, such as
  1. Writing an article on a topic
  2. Inquiring about historical events and their sequence.
- Also, AI works to imitate sounds when provided with the tone of voice of an actual human being.

• الذكاء الصناعي: يُقصد به تطبيقات الكمبيوتر التي تقوم بمهام معقدة تحاكي تفكير وأداء العنصر البشري، مثل القدرة على التعلُّم والاستدلال.

• من خلال تزويد هذه التقنيات بالمعلومات والمعرفة والإجابات المحتملة لجميع الأسئلة المحتملة، يمكن للآلة تقديم إجابات للبيانات المقدمة، مثل:

1. كتابة مقال حول موضوع ما.
2. الاستفسار عن الأحداث التاريخية وتسلسلها.

• كما يعمل الذكاء الاصطناعي على تقليد الأصوات عندما يتم تزويده بنبرة صوت إنسان حقيقي.

Exercises on Lesson 2

1 Choose the correct answer:

1. .... are group of people or things that are connected to each other.
   a. Modems b. Networks c. Routers
2. .... perform(s) complex tasks that simulate the thinking and performance of people.
   a. Artificial intelligence b. Holograms c. Switches
3. Computer networks are used to .... information and data.
   a. create b. delete c. share
4. .... networks connect devices using Wi-Fi.
   a. Wired b. Wireless c. Both of them
5. Wired networks connect devices using ....
   a. Wi-Fi b. radio waves c. cables
6. .... is a device that connects a local area network (LAN) to the internet.
   a. Artificial intelligence b. Modem c. Server
7. AI is an abbreviation for ....
   a. Automated Intelligence b. Advanced Innovation
   c. Artificial Intelligence
8. .... are intelligent devices that pass information to a specific device over a network.
   a. Switches b. Hubs c. Modems
9. A .... converts the signal from the internet service provider (ISP) into a digital signal.
   a. modem b. router c. switch
10. .... can imitate sounds when provided with the tone of voice of an actual human being.
    a. A modem b. Artificial intelligence c. Switches

2 Put (✓) or (✗):

1. Networks are groups of people or things that are connected to each other ( )
2. Wireless networks connect devices with physical wiring and cables. ( )
3. There is only one way to connect computers to a network, using cables. ( )
4. Computers don't need network connection devices to transfer data. ( )
5. Artificial intelligence can imitate the sounds of people. ( )
6. Switches are intelligent devices. ( )
7. Modem is a device that converts the signal from ISP into a digital signal. ( )
8. A modem sends data to a specific device on the network. ( )
9. Wired networks use physical cables which are plugged into ports. ( )
10. Switches direct data to specific devices, making connections easier and faster. ( )
11. We can connect devices to a network without wiring. ( )
12. A router works as a gateway that connects a computer to an internet service provider (ISP). ( )

3 Complete the following sentences using the words between the brackets:

(intelligent – router – specific – Wired – AI)

1. .... networks connect devices using cables.
2. Switches send data to a(an) .... device on the network.
3. A .... works as a gateway to connect devices to the internet.
4. Switches are .... devices.
5. .... can imitate sounds of people by providing a tone of actual people.



4 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 AI	a. connects a modem to different networks.
2 A router	b. are groups of people or things that are connected together.
3 A switch	c. is a hole on devices where cables are plugged in.
4 Networks	d. computer applications that simulate the thinking and performance of people.
5 A port	e. is an intelligent device that send data to a specific device on the network.

1 .... 2 .... 3 .... 4 .... 5 ....

Theme 1

5 Read the sentences and name the device:

This item...	What am I?
(1) ... connects a network to another network. You need it to connect any device to the Internet.	....
(2) ... sends data to a specific device over a network.	....
(3) ... sends data to all wired devices connected to it.	....
(4) ... is the part of a computing device available for connection with input (e.g., a keyboard, or a mouse) and output devices (e.g., speakers, a printer).	....
(5) ... is a computer which provides services to other computers. There are many different types, but a common function is to store audio files, video files, documents, and many other file types.	....
(6) ... allow wired devices to connect to a network and pass information to all the devices on that network.	....

6 Think about the network equipment you will need for the following scenarios and create a computer network for each one. Draw and label the networks.

Hub | Modem | Network cable | Router | Server | Switch

(1) Fares wants to connect his laptop to his parent's desktop computer.

(2) Mrs. Gamal's ICT classroom has ten PCs and wants everyone to be able to access all files, even when one computer is turned off.

(3) Everyone in Mostafa's football team needs to access the Internet to play online multi-player football games.

Lesson 3 Futuristic Technology

» Augmented reality, virtual reality, and artificial intelligence (AI) feel futuristic, but they are already being used in education and everyday life.

• يبدو أن الواقع المُعزَّز (AR) والواقع الافتراضي (VR) والذكاء الاصطناعي (AI) أنواع من التكنولوجيا المستقبلية، لكن يتم استخدامها بالفعل في التعليم والحياة اليومية.

Augmented Reality (AR)

» Augmented reality (AR) combines the real world with a virtual world by adding computer-generated images.

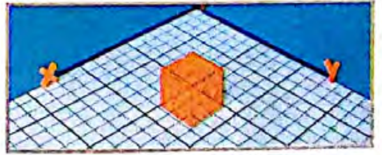
» This can be done through the camera of a smartphone or a tablet and will show a 3D model of what looks like the real world.

• يجمع الواقع المُعزَّز بين العالم الحقيقي والواقع الافتراضي بإضافة صور مُولَّدة بالكمبيوتر.

• يمكن فعل ذلك بواسطة كاميرا الهاتف الذكي أو جهاز لوحي، وهذا سيعرض نموذجًا ثلاثي الأبعاد لما يشبه العالم الحقيقي.

For example:

- In a math class, students can use their smartphone camera to project 3D images of shapes like cubes or cylinders onto a flat surface, making it appear as if the shapes are in front of them.
- In a science class, students can use a sky map app to point at the night sky and see a digital layer of labeled stars, planets, and nebulae.
- AR helps students become active participants in learning and makes learning more memorable.





• فعلى سبيل المثال: في حصة الرياضيات، يمكن للطلاب استخدام كاميرا هواتفهم الذكية لعرض صور ثلاثية الأبعاد لأشكال مثل المكعبات أو الأسطوانات على سطح مسطح؛ مما يجعلها تبدو وكأنها أمامهم.

• ويمكن للتلاميذ في حصة العلوم أيضًا استخدام تطبيق الخرائط السماوية؛ لتوجيه الهاتف إلى السماء ليلًا ورؤية طبقة رقمية من النجوم والكواكب والسُّدُم.

• يساعد الواقع المُعزَّز التلاميذ ليصبحوا مشاركين نشطين في التعلُّم، ويجعل التعلُّم لا يُنسى.

Explanatory Information

معلومات توضيحية إضافية خارج الكتاب المدرسي

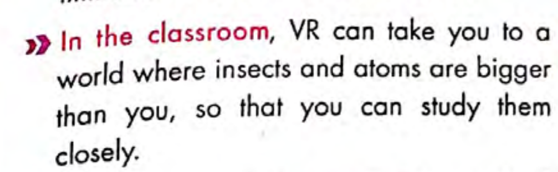
- **Augmented reality (AR)** is a technology that adds digital images or information to the real world around you.
- **For example**, you can see a dinosaur walking around your living room, or the names of all the stars in the night sky.
- **Another example** is the game Pokémon Go, where you can catch Pokémon that appears in the real world through your phone's camera.
  - That's AR! It's like adding a layer of fun and imagination to the real world.
  - AR works by using a device, such as a smartphone or tablet, to scan the real world. The device then uses this information to overlay digital information on top of the real world.

Virtual Reality (VR)

Virtual reality (VR): It is a simulated 3D environment that allows users to explore and interact with the surroundings as if they were in reality.

الواقع الافتراضي بيئة تخيلية ثلاثية الأبعاد تسمح للمُستخدِمين باستكشاف محيطهم والتفاعُل معه وكأنّه حقيقة.







- To experience VR, users often wear **a VR headset** that **blocks out the real world** and **provides 360-degree views** that immerse the user in another world.
- **In the classroom**, VR can take you to a world where insects and atoms are bigger than you, so that you can study them closely.
- It can take you to **a museum** thousands of miles away or to a historical site hundreds of years ago.
- A **cardboard VR headset** is an **inexpensive** way to experience VR using almost any smartphone.

NOTE:

- You can use the Egyptian Knowledge Bank to locate websites that include AR and VR experiences in Egypt.

- لتجربة الواقع الافتراضي، يرتدي المستخدمون غالبًا «سماعة رأس VR»؛ إذ تحجب عنهم الحياة الواقعية، وتوفر لهم إطلالات بزاوية ٣٦٠ درجة تجعل المستخدم ينغمس في عالم آخر.
- أما في غرفة الفصل، فيمكن أن يأخذك الواقع الافتراضي إلى عالم حيث الحشرات أو الذرات أكبر منك حجمًا؛ لتتمكَّن من دراستها بعناية.
- يمكن أيضًا من خلاله أن تزور متحفًا يبعد عنك آلاف الأميال، أو يأخذك إلى موقع أثري قديم يعود لمئات السنين.
- إن «سماعة رأس VR» المصنوعة من الورق المُقوَّى، من الأدوات الرخيصة لتجربة الواقع الافتراضي، ويمكن استخدامها مع معظم أنواع الهواتف الذكية.





Theme 1

Explanatory Information

معلومات توضيحية إضافية خارج الكتاب المدرسي

An example of virtual reality (VR): Imagine you're studying ancient Egypt. With VR, you can feel like you're actually there in the Pyramids! You can see everything, like you're really inside the Pyramids. You can even hear sounds and feel like you're really there!

- VR is like playing a video game, but instead of just watching the screen, you can feel like you're really inside the game.
- VR works by using special equipment like a headset and gloves to see, hear, and touch things in this virtual world.

Artificial Intelligence (AI)

» It is the ability of a machine, such as a computer, to think and learn.

» A computer learns by analyzing the provided examples.

- الذكاء الاصطناعي هو قدرة آلة مثل الكمبيوتر على التفكير والتعلم.
- يتعلم الكمبيوتر من خلال تحليل الأمثلة المتوفرة له.

Example on using AI:

1. A smartphone or email program predicts the next word you will type learns from the words you have typed before.
2. AI is used to unlock your phone with facial recognition.
3. AI is also used to personalize social media content and search results.

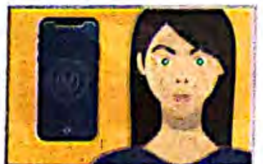
» AI runs in the background of programs, doing things such as:

a. Filtering spam mail

b. Matching a passenger with an available driver

1. الهاتف الذكي أو برنامج البريد الإلكتروني يتنبأ بالكلمة التالية التي ستكتبها، حيث يتعلم من الكلمات التي كتبتها سابقًا.
2. يُستخدم الذكاء الاصطناعي لإلغاء القفل وفتح هاتفك من خلال نظام التعرُّف على الأوجه.
3. ويُستخدم أيضًا لتخصيص محتوى الوسائط الاجتماعية ونتائج البحث.

- يعمل الذكاء الاصطناعي في خلفية البرامج، وينجز أمورًا مثل تصفية الرسائل الإلكترونية المزعجة أو مطابقة الراكب مع السائق المتوفر.







Lesson 3

How can futuristic technology improve education and life?

» Futuristic technologies can improve the lives of people of determination.

» For example:

1. Someone with a visual impairment can use AR to see their family members up close.
2. Disabled individuals can use virtual assistants powered by AI to accomplish everyday tasks, such as making phone calls and navigating their computer using their voice or sign language.
3. VR can also immerse able-bodied people in experiences that demonstrate the barriers disabled people face every day.



» كيف يمكن للتكنولوجيا المستقبلية تحسين التعليم والحياة اليومية؟

- يمكن للتكنولوجيا المستقبلية تحسين حياة الأشخاص ذوي الهمم، فعلي سبيل المثال:

1. يستطيع شخص ضعيف البصر أن يستخدم الواقع المُعزَّز (AR)؛ ليرى أفراد أسرته عن قرب.
2. يمكن للأشخاص ذوي الهمم استخدام مساعدين افتراضيين مدعومين بالذكاء الاصطناعي لإنجاز المهام اليومية، مثل الاتصالات الهاتفية واستخدام أجهزة الكمبيوتر الخاصة بهم باستخدام أصواتهم أو لغة الإشارة.
3. يمكن للواقع الافتراضي أيضًا أن يغمر الأشخاص الأصحـــاء في تجارب تُبيِّن لهم العراقيل التي يواجهها ذوو الهمم يوميًا.

Exercises on Lesson 3

1 Choose the correct answer:

1. .... combines the real world with a virtual world by adding computer-generated images.
   a. Virtual reality b. Augmented reality c. Assistive technology
2. .... is a simulated 3D environment that allows users to explore and interact with the surroundings as if they were in reality.
   a. Virtual reality b. Artificial intelligence c. Assistive technology
3. .... is the ability of a machine such, as a computer, to think and learn.
   a. Virtual reality b. Augmented reality c. Artificial Intelligence
4. Visually impaired people can use .... to see their family members up close.
   a. artificial intelligence b. augmented reality c. hearing aids
5. To experience virtual reality, users often wear ....
   a. 3D glasses b. VR headsets c. AR headsets
6. Augmented reality can be done using the .... of your smartphone.
   a. microphone b. speaker c. camera
7. A VR headset blocks out the .... world and provides 360-degree views.
   a. real b. virtual c. both of the previous
8. Facial recognition is a feature used to unlock your phone using ....
   a. artificial intelligence b. virtual reality c. augmented reality
9. Augmented reality shows a/an .... model of what looks like the real world.
   a. 2D b. 3D c. invisible

10. A cardboard VR headset is a/an .... way to experience VR using your smartphone.
    a. expensive b. inexpensive c. difficult
11. Students can use a .... app to point at the night sky and see a digital layer of labeled stars, planets, and nebulae using AR.
    a. Google Maps b. Vlaby c. Sky Map
12. A computer learns by .... the provided examples.
    a. analyzing b. storing c. saving
13. Predicting the next word you will type using your smartphone is an example of ....
    a. virtual reality b. augmented reality c. artificial intelligence
14. Disabled people can use virtual assistants powered by .... to do everyday tasks, such as navigating their computer.
    a. artificial intelligence b. augmented reality c. virtual reality

2 Put (✓) or (✗):

1. A computer learns by analyzing the provided examples. ( )
2. The Uber app uses artificial intelligence to match riders with available drivers. ( )
3. Augmented reality, virtual reality, and artificial intelligence (AI) are considered futuristic technologies. ( )
4. Futuristic technologies can't improve the lives of people of determination. ( )
5. Artificial intelligence can run in the background of programs to filter spam mail. ( )
6. There is no difference between augmented reality and virtual reality. ( )
7. Virtual reality is a simulated 2D environment that allows users to interact with the surroundings. ( )
8. A VR headset blocks out the real world, and provides 360-degree views. ( )

Theme 1

9 AR combines the real and virtual worlds to show 3D models that look real. ( )

10 AI is used to unlock your phone with facial recognition. ( )

11 Augmented reality helps students become active participants in learning. ( )

12 The ability of a machine, such as a computer, to think and learn is called AR. ( )

13 A cardboard VR headset is an expensive way to experience virtual reality. ( )

14 To experience virtual reality, users often wear a AR headset. ( )

15 Virtual reality allows you to explore museums from all over the world without leaving your home. ( )

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 VR	a. includes AI, AR and VR.
2 AR	b. is the ability of a machine to think and learn.
3 AI	c. can be used to do everyday tasks, such as making phone calls.
4 Virtual assistants	d. is a simulated 3D environment that allows users to interact with the surroundings.
5 Futuristic technology	e. adds computer-generated images to show a 3D model of what looks like the real world.

1 .... 2 .... 3 .... 4 .... 5 ....



Lesson 4 Evaluating Cutting-Edge Technology

Reliable Cutting-Edge Technology

Cutting-edge technology

» It's the newest and most advanced version of a service or product.

• التكنولوجيا المُتطوِّرة: هي الإصدار الأحدث والأكثر تقدمًا من خدمة أو منتج.

Assistive technology

» It helps people of determination with tasks they find challenging, such as:

1. Screen magnification software
2. Hearing aids
3. Programs that turn speech into text and text into speech

• التكنولوجيا المُساعِدة: تساعد الأشخاص ذوي الهمم في أداء المهام التي يجدونها صعبة، مثل: برمجيات تكبير الشاشة، والسماعات الطبية، والبرامج التي تُحوِّل الكلام إلى نص والنص إلى صوت مسموع.

Cutting-Edge Technology Examples

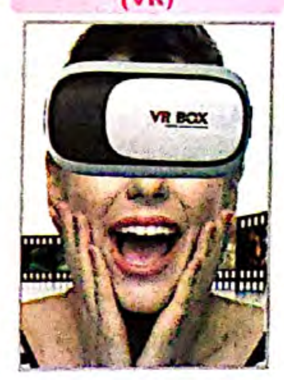
Artificial Intelligence (AI)



Augmented Reality (AR)



Virtual Reality (VR)



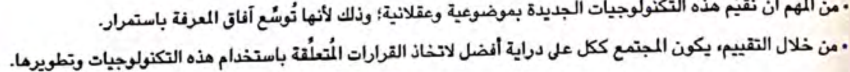
Theme 1

- Cutting-edge technology has transformed life in ways that were unimaginable even a decade ago.
- These changes are emerging in new and exciting ways to help in the education, improving lives, and inclusion in society, such as the assistive technology of smartgloves.

Smartgloves: They empower deaf people to translate their signs in real time to spoken or text output.

القفازات الذكية تُمكِّن الأشخاص الصم من ترجمة إشاراتهم فوريًّا إلى مُخرَج نصي أو منطوق.

- It is important to be objective and evaluate these new technologies that are pushing the frontiers of knowledge.
- By evaluating, society as a whole is better informed to make decisions regarding the use and development of such technologies.



- أحدثت التكنولوجيا المتطورة تغييرات في الحياة بطُرُق لم يكن من الممكن تصوُّرها حتى قبل عقد من الزمان.
- تظهر هذه التغييرات بطُرُق جديدة ومثيرة للمساعدة في التعليم، وكذلك لتحسين الحياة والاندماج في المجتمع، مثل القفازات الذكية من فئة التكنولوجيا المُساعِدة.
- من المهم أن نُقيِّم هذه التكنولوجيات الجديدة بموضوعية وعقلانية؛ وذلك لأنها تُوسِّع آفاق المعرفة باستمرار.
- من خلال التقييم، يكون المجتمع ككل على دراية أفضل لاتخاذ القرارات المُتعلِّقة باستخدام هذه التكنولوجيات وتطويرها.

- There are different evaluation tools we can use to evaluate these new technologies.

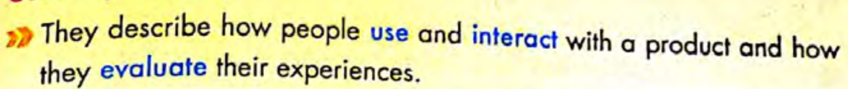
Explanatory Information

معلومات توضيحية إضافية خارج الكتاب المدرسي

- Assistive technology smartgloves are devices that use sensors to track the movements of the wearer's hands. These movements are then sent to a computer or smartphone, which uses artificial intelligence (AI) to translate them into spoken or text output.
- This allows deaf people to communicate with others who do not know sign language.

Lesson 4

User Experiences (UX)

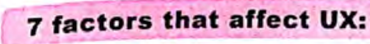


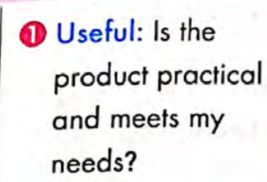
User experiences:

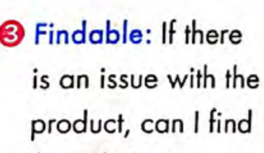
- They describe how people use and interact with a product and how they evaluate their experiences.
- User experience is often divided into different areas and can be positive or negative.

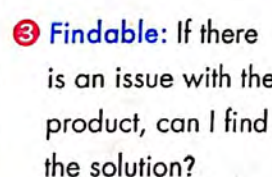
- تجربة المُستخدِم تصف كيفية استخدام الأشخاص للمنتج وتفاعلهم معه وكيفية تقييمهم لتجاربهم.
- غالبًا ما تُقسَّم تجربة المُستخدِم إلى مجالات مختلفة، ويمكن أن تكون إيجابية أو سلبية.

7 factors that affect UX:

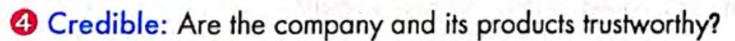








1. **Useful:** Is the product practical and meets my needs?
2. **Usable:** Is the product easy to use and understand?
3. **Findable:** If there is an issue with the product, can I find the solution?
4. **Credible:** Are the company and its products trustworthy?
5. **Accessible:** Is the product accessible for people with disabilities?
6. **Desirable:** Is the product pleasant to look at and interact with?
7. **Valuable:** Does the product improve my life or help me learn?



Meeting Needs

- User experience is interlinked with the **development** of products and services.
- The goal of cutting-edge assistive technology, which comes in many forms, is always the same:
  1. To improve someone's independence.
  2. Consequently, to be included in the society.

تلبية الاحتياجات:

- ترتبط تجربة المُستخدِم بتطوير المنتجات والخدمات.
- الهدف من التكنولوجيا المُساعِدة المتطوِّرة، والتي تأتي في أشكال عديدة، هو دائمًا نفس الشيء: تحسين استقلالية شخص ما؛ وبالتالي اندماجه في المجتمع.



How to choose the best assistive technology?

- There are several steps and considerations that include:
  1. Awareness of the person's abilities and challenges
  2. Identifying and defining a specific need
  3. Brainstorming possible cutting-edge assistive technology products
  4. Designing and testing
  5. Reviewing what works well, what doesn't work as well, and adapting to meet the user's needs



- يوجد خطوات واعتبارات مُتعدِّدة تشمل ما يلي:
  1. الوعي بقدرات الشخص وتحدِّياته.
  2. تحديد حاجة معينة وتعريفها.
  3. التفكير في أكثر منتجات التكنولوجيا المُساعِدة تطوُّرًا.
  4. التصميم والاختبار.
  5. إعادة النظر في منتجات التكنولوجيا المُساعِدة التي تعمل بشكل جيِّد، والتي لا تعمل بشكل جيِّد، والتعديل فيها؛ لتتلاءم مع حاجات المُستخدِم.

Exercises on Lesson 4



1 Choose the correct answer:

1. The newest and most advanced version of a service or product is called .... technology.
   a. assistive b. cutting-edge c. virtual
2. .... technology helps people of determination with tasks they find challenging.
   a. Assistive b. Cutting-edge c. Virtual
3. Screen magnification software and hearing aids are types of .... technology.
   a. futuristic b. cutting-edge c. assistive
4. .... describe how people interact with a product, and how they evaluate their experiences.
   a. Futuristic technology b. User experience c. Virtual reality
5. Artificial intelligence, augmented reality, and virtual reality are examples of .... technology.
   a. assistive b. cutting-edge c. Microsoft
6. .... empower deaf people to translate their signs to spoken or text output.
   a. Hearing aids b. Smart glasses c. Smartgloves
7. If the product is practical and meets the customer's needs, the user experience will be ....
   a. positive b. negative c. neutral
8. Complicated and hard-to-use products result in .... user experiences.
   a. positive b. negative c. neutral

2 Put (✓) or (✗):

1. The newest and most advanced version of smartphones is called assistive technology. ( )
2. Smartgloves are a type of assistive technology. ( )

Theme 1

3. Artificial intelligence is one of the cutting-edge technologies. ( )
4. Programs that convert speech to text and vice versa are a type of assistive technology. ( )
5. User experiences describe how people use a product and evaluate their experiences. ( )
6. A user experience is always positive. ( )
7. Credibility and accessibility are factors that affect user experiences. ( )
8. Smartgloves don't empower people of determination. ( )
9. The development of products and services doesn't affect the user experience. ( )
10. One of the goals of assistive technology is to improve someone's independence. ( )
11. The best assistive technology for a person depends on their individual abilities and challenges. ( )
12. Assistive technology helps people of determination to be included in the society. ( )
13. If the product is pleasant to look at and interact with, this makes the user experience negative. ( )

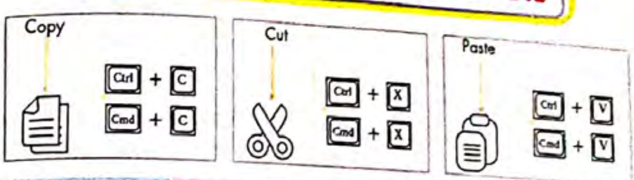
3 Complete the following sentences using the words between the brackets:

(Cutting-edge technology – User experiences – Smartgloves – Assistive technology – Hearing aids)

1. .... translate sign language to speech or text.
2. .... helps people of determination with tasks they find challenging.
3. .... is/are how people feel about using a product.
4. .... is/are the latest and most advanced technology.
5. .... is/are a type of assistive technology that can help people with hearing troubles.

Lesson 5 Digital Research Skills

Useful Digital Search Tools



OS \ Command	Copy	Cut	Paste
• Windows	• Ctrl + C	• Ctrl + X	• Ctrl + V
• MacOS	• Cmd + C	• Cmd + X	• Cmd + V

» Copy, cut, and paste are some of the most commonly used word processing commands.

» They are very useful when copying, cutting, or pasting:

- Text
- Images
- Information for citing sources

• أوامر النسخ والقص واللصق هي بعض أوامر معالجة الكلمات الأكثر استخدامًا، وتكون مفيدة جدًّا عند نسخ أو قص أو لصق نص أو الصور أو الاستشهاد بالمصادر.



» All of these tools are used to search for information, but the results will be different.

» Knowing what results you need helps to inform which search tool(s) you could use.



• أدوات البحث الرقمية تتضمَّن: البحث عبر الإنترنت، ومُحرِّكات البحث المتخصصة، والمكتبات الإلكترونية الموثوقة والمتاحة عبر الإنترنت.

• تساعد الأدوات في البحث عن المعلومات المطلوبة، لكنَّ النتائج الصادرة عن كلٍّ منها تكون مختلفة؛ ولذلك تساعد معرفة النتائج التي تحتاج إليها في تحديد أداة/أدوات البحث التي يمكنك استخدامها.

Theme 1

Search Engines



» Search engines help people search internet websites based on keywords and phrases.
» They are user-friendly, very fast, and often give many results.
» Be sure that the content you select is credible, accurate, and unbiased.
» Examples: Google, Bing

- تساعد مُحرِّكات البحث الأشخاص على البحث في مواقع الإنترنت بناءً على الكلمات والعبارات الرئيسة.
- وهي سهلة الاستخدام وسريعة جدًّا، وغالبًا ما تُظهر العديد من النتائج.
- تأكَّد من أن المحتوى الذي تختاره موثوق ودقيق وغير منحاز.

Databases

Databases

» They are collections of information which are typically stored on a computer system and can be accessed for free through a school or library.

- قواعد البيانات عبارة عن مجموعات من المعلومات، تُخزَّن عادةً في نظام حاسوبي، ويمكن الوصول إليها مجانًا من خلال مدرسة أو مكتبة.



» A database is a good place to search for information from journals, newspapers, and reference books.

- قاعدة البيانات مكان جيِّد للبحث عن المعلومات من المجلات والصحف والكتب المرجعية.

General Database	Subject Database
• It covers many subjects. • Ex: EKB Note: A search for 'self-driving car' on the EKB won't provide a lot of results, but the results will be credible and accurate. • قاعدة البيانات العامة تتناول العديد من الموضوعات مثل بنك المعرفة المصري. ملحوظة: لن يُوفِّر البحث عن «سيارات ذاتية القيادة» على موقع بنك المعرفة المصري الكثير من النتائج، ولكنها ستكون موثوقة ودقيقة.	• It covers only one subject, such as business or law. • Any results will be specific to your topic. • قاعدة البيانات المتخصصة تتناول موضوعًا واحدًا فقط، مثل ريادة الأعمال أو القانون، وأي من نتائجها ستكون محددة لموضوع بحثك.

Lesson 5

Library Catalogs

Library catalog

» It is a database that includes all the items owned by a library.

فهرس المكتبة هو قاعدة بيانات تضم كل المصادر والعناصر التي تحتويها المكتبة.

» A library catalog search may include recently published books, including e-books with the most recent research about a subject.

- قد يتضمَّن البحث في فهرس المكتبة كتبًا منشورة حديثًا، بما في ذلك الكتب الإلكترونية التي تحوي أحدث الأبحاث في موضوع معيَّن.

Conducting a Database Search

» When you search any database:
1. Use a keyword search.
2. Review the results for subject headings and search again with those terms.
3. You can use other database fields, such as author or journal title to narrow a search.

» Limiting a search to the last few years will help you find the most up-to-date research.

- عند البحث في أيِّ قاعدة بيانات، استخدِم البحث بالكلمات المفتاحية.
- أعِد النظر في نتائج عناوين الموضوع، وابحث مجددًا باستخدام هذه المصطلحات.
- يمكنك استخدام حقول أخرى متوفِّرة في قاعدة البيانات، مثل: اسم المؤلِّف أو عنوان المجلة؛ لتضييق نطاق البحث.
- سيساعدك حدُّ البحث بالسنوات القليلة الماضية في العثور على أحدث الأبحاث.



Exercises on Lesson 5

1 Choose the correct answer:

1. EKB is a .... source of information.
   a. credible b. unreliable c. biased
2. You can use .... to search on the Internet using keywords and phrases.
   a. search engines b. programing languages c. books
3. .... is/are collections of information that are typically stored on a computer system.
   a. Search results b. Databases c. Software
4. The shortcut used in Windows to paste a text or image is ....
   a. "Cmd + V" b. "Ctrl + V" c. "Ctrl + P"
5. The keyboard shortcut "Cmd + X" is used to .... a text or an image in macOS.
   a. copy b. cut c. paste
6. You can use the shortcut "Ctrl + C" to .... a text or an image in Windows.
   a. copy b. cut c. paste
7. When conducting a digital search, make sure the information you get is ....
   a. credible b. biased c. unreliable
8. .... is a database which includes all the items owned by a library.
   a. EKB b. A digital library c. A library catalog
9. The .... database covers only one subject, such as business or law.
   a. general b. subject c. electronic

10. Search engines help people search online based on ....
    a. keywords b. phrases c. both of the previous
11. EKB is an example of a .... database which covers many subjects.
    a. subject b. general c. network

2 Put (✓) or (✗):

1. There is only one type of database. ( )
2. EKB is an example of a subject database. ( )
3. Databases can be accessed for free through a school or library. ( )
4. It is not important to credit the source of information. ( )
5. All digital search tools give similar results. ( )
6. It is recommended to use a keyword to conduct a database search. ( )
7. A library catalog search doesn't include recently published books. ( )
8. You can press "Ctrl + C" to cut a text or an image in Windows. ( )
9. The shortcut "Cmd + V" is used to paste a text or an image in macOS. ( )
10. EKB is an inaccurate source of information. ( )
11. Bing is a reliable database. ( )
12. Some Google search results may be biased. ( )
13. Limit your search to the last few years to get up-to-date results from a database. ( )
14. Be sure the search result you select is credible and accurate. ( )
15. Search engines are user-friendly, very fast, and often give many results. ( )
16. A database is a good place to search for information from journals, newspapers, and books. ( )
17. The shortcut "Cmd + X" is used to cut a text or an image in Windows. ( )
18. The type of results you need will help you choose which search tool to use. ( )

Theme 1

19 General databases are designed to provide information on a specific topic. (   )

20 You can use other database fields, such as author or journal title, to narrow a search. (   )

3 Complete the following sentences using the words between the brackets:

(library catalog – cut – keywords – subject database – EKB)

1 The shortcut "Ctrl + X" is used to .... a text in Windows.

2 .... is an example of a general database which covers many subjects.

3 It is preferable to use .... to search for information on a database.

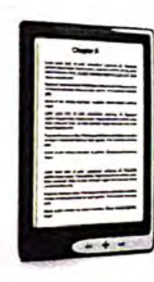
4 A .... covers only one subject and any results will be specific to your topic.

5 A .... is a database which includes all the items owned by a library.

Lesson 6 Mobile Devices

Types of Mobile Devices

» Mobile devices include smartphones, tablets, and e-readers.

Smartphones and Tablets	E-readers
• They surf the web and check emails, similar to PCs. • They often have high-quality cameras, speakers, and screen resolution. • تُستخدم الهواتف الذكية والتابلت في تصفُّح شبكة الإنترنت، والتحقُّق من البريد الإلكتروني مثل أجهزة الكمبيوتر الشخصية. • وغالبًا ما تحتوي على كاميرات وسماعات ودقّة شاشة عالية الجودة. 	• They look like tablets, but are mainly used for reading books. • القارئات الإلكترونية تبدو مثل التابلت، ولكنُّها تُستخدَم بشكل أساسي في قراءة الكتب. 

Mobile devices features

» These handheld computers are portable and can access the Internet.

» They can be held in landscape or portrait mode, laid flat, and connected to other devices.

» Many mobile devices function by touch.

• تتميَّز أجهزة الكمبيوتر المحمولة هذه بقابلية حملها وإمكانية اتصالها بشبكة الإنترنت.
• ويمكن حملها في وضع أفقي أو عمودي أو وضعها بشكل مسطَّح، والاتصال بأجهزة أخرى.
• تعمل العديد من الأجهزة المحمولة بتقنية اللمس.

Mobile devices and learning

- Mobile devices offer higher engagement levels for students and extend learning beyond the classroom, for example:
  1. Creating short videos or taking photos for projects.
  2. Scanning QR codes to access content-related videos, audios, and texts created by the teacher, and the students themselves.
  3. Greater opportunities for collaboration by using online post-it walls, shared class forums, or group chats.
  4. Listening to podcasts, reviews of video games, and accessing learning apps.

• تتيح الأجهزة المحمولة مستويات مشاركة بمعدَّل أعلى للطلاب، وتوسع نطاق التعلُّم خارج الفصل الدراسي، على سبيل المثال:

1. إنشاء مقاطع فيديو قصيرة أو التقاط صور للمشروعات.
2. مسح رموز الاستجابة السريعة QR codes للوصول إلى الفيديو والمقاطع الصوتية والنصوص ذات الصلة بالمحتوى، والتي أنشأها المعلِّم والتلاميذ أنفسهم.
3. إتاحة المزيد من الفرص للتعاون من خلال استخدام جدران نشر التعليقات عبر الإنترنت أو منتديات الفصل المشتركة أو الدردشات الجماعية.
4. الاستماع إلى المدوَّنات الصوتية (البودكاست) والحصول على التقييمات الخاصة بألعاب الفيديو والوصول إلى تطبيقات التعلُّم.

The challenges of using mobile devices

- Some people say that having such easy access to any information has decreased:
  1. Thinking skills
  2. Social interaction
  3. People's attention span
- Being tempted to use the device for social or entertainment reasons is another possible issue.
- Small screens can make reading texts challenging and viewing complex graphics difficult.

• يرى البعض أن سهولة الوصول إلى المعلومات قد قلَّل من مهارات التفكير والتفاعل الاجتماعي، ومن مدى فترة تركيز الناس.
• التعرُّض لإغراء استخدام الجهاز المحمول لأسباب اجتماعية أو ترفيهية، يُعَدُّ مشكلة أخرى مُحتمَلة.
• كما يمكن للشاشات الصغيرة أن تجعل قراءة النصوص ومشاهدة الرسومات البيانية المعقدة أمرًا صعبًا.



Explanatory Information

معلومات توضيحية إضافية خارج الكتاب المدرسي

- Online post-it walls are a great way to brainstorm ideas and collaborate on projects.
- They allow users to post sticky notes with their ideas, which can then be easily shared and edited by others. This makes it easy to keep track of everyone's ideas.
- Google Keep and Evernote are examples of online post-it wall apps.

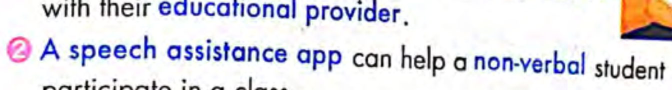
Providing solutions with cutting-edge assistive technology

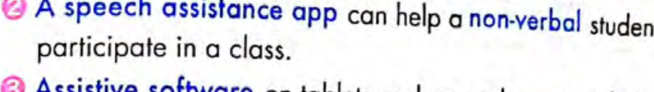
- Without cutting-edge assistive technology products and apps for tablets and smartphones, people of determination face challenges accessing education, healthcare, and employment.
- Cutting-edge assistive technology installed on mobile devices is providing new solutions.



For examples:

1. This technology can connect homebound individuals with their educational provider.





2. A speech assistance app can help a non-verbal student participate in a class.
3. Assistive software on tablets and smartphones can help people of determination in the workplace to manage time and tasks.

- Essential future skills can be developed so that all citizens can use their mobile devices to access learning.

• من دون منتجات وتطبيقات التكنولوجيا المُساعِدة المتطوِّرة المخصصة للأجهـزة اللوحية والهواتف الذكية، يواجـه ذوو الهمم تحدِّيات في الحصول على التعليم والرعاية الصحية والتوظيف.
• تُوفِّر التكنولوجيا المُساعِدة المتطورة المثبَّتة على الأجهزة المحمولة حلولًا جديدة. على سبيل المثال، يمكن لهذه التكنولوجيا ربط الأفراد المجبرين على البقاء في المنزل بمُقدِّم الخدمات التعليمية الخاص بهم.
• كما يمكن لتطبيقات المساعدة على الكلام مساعدة التلاميذ المصابين باضطراب التعلُّم غير اللفظيِّ في المشاركة داخل الفصل.
• وتُعاون البرامج المُساعِدة المثبَّتة على الأجهزة اللوحية والهواتف الذكية الأشخاص ذوي الهمم على إدارة الوقت والمهام في أماكن عملهم.
• يمكن تطوير المهارات المستقبلية الأساسية؛ حتى يتمكَّن جميع المواطنين من استخدام أجهزتهم المحمولة للتعلُّم.



Exercises on Lesson 6

1 Choose the correct answer:

1. .... include(s) smartphones, tablets, and e-readers.
   a. Assistive technology b. Mobile devices c. Network devices
2. .... are used to surf the web and check emails, like PCs.
   a. Smartphones and tablets b. Cameras and speakers c. Keyboards
3. You can scan QR codes to access ....
   a. text b. video and audio c. both of the previous
4. E-reader is a mobile device that is mainly used to ....
   a. read books b. watch videos c. check emails
5. Smartphones and tablets often have ....
   a. cameras b. speakers c. both of the previous
6. .... app can help a non-verbal student participate in a class.
   a. A screen magnification b. A speech assistance c. Zoom
7. Mobile devices can be used in .... mode(s), depending on the required task.
   a. portrait b. landscape c. both of the previous
8. Smartphones and tablets often have ....-quality screen resolution.
   a. high b. low c. normal
9. Mobile devices can help students learn in more engaging ways beyond the classroom through activities, such as ....
   a. listening to podcasts b. scanning QR codes c. both of the previous
10. You can use mobile devices to scan .... and access related content.
    a. PIN codes b. QR codes c. podcasts

2 Put (✓) or (✗):

1. There is no difference between smartphones and e-readers. ( )
2. E-readers are a type of mobile device. ( )
3. Smartphones and tablets are used to browse the web and check emails. ( )
4. E-readers often have high-quality cameras and speakers. ( )
5. Some people think that easy access to information may decrease thinking skills. ( )
6. Mobile devices can extend the learning of students outside of the classroom. ( )
7. It is difficult to create short videos using mobile devices. ( )
8. Modern mobile devices function by touch. ( )
9. Small screens can make viewing complex graphics difficult. ( )
10. E-readers are used to create graphs and videos. ( )
11. Mobile devices can be held only in portrait mode. ( )
12. Easy access to information using mobile devices has increased people's attention span. ( )
13. Technology can help homebound individuals connect with education providers. ( )
14. Assistive technology has no effect on people of determination. ( )

3 Complete the following sentences using the words between the brackets:

(E-readers – speech assistance – Mobile devices – QR codes – post-it walls)

1. .... are portable and can be held in landscape or portrait mode.
2. Scanning .... helps students access information quickly and easily.
3. .... look like tablets, but are mainly used for reading books.
4. A .... app can help a non-verbal student participate in a class.
5. Online .... on mobile devices provide greater opportunities for collaboration between students.

Lesson 7 Mobile Operating Systems

Operating system (OS): It is the software that manages a computer's functions, such as memory, drives, printers, and other devices.

نظام التشغيل: هو البرنامج الذي يدير وظائف الكمبيوتر مثل الذاكرة ومُحرِّكات الأقراص والطابعات والأجهزة الأخرى.

- The operating system also manages accessible devices, such as screen readers and magnifiers.
- It runs a computer's software and hardware.
- It acts as a translator, allowing a user to communicate with the computer without knowing computer languages.

• نظام التشغيل يدير أيضًا الأجهزة المُساعِدة مثل قارئات ومكبِّرات الشاشة.
• كما أنه يدير برامج وأجهزة الكمبيوتر ويعمل مترجمًا، وهذا يُمكِّن المُستخدِم من التواصل مع الكمبيوتر من دون الحاجة إلى معرفة لغاته.

Computer Operating Systems

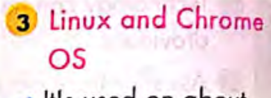
- Most computers come pre-loaded with an operating system, such as:

• تأتي معظم أجهزة الكمبيوتر مُحمَّلة مسبقًا بنظام تشغيل مثل:

1 Microsoft Windows
- It's the most popular worldwide.
- It's used on 75% of computers.



2 MacOS
- It runs on Apple computers.
- It's used on 15% of the world market.



3 Linux and Chrome OS
- It's used on about 2-3% of the market.





Mobile Operating Systems

- Mobile devices have mobile operating systems.

Android	Apple iOS
• The most popular worldwide	• Runs on iPhone
• Used on 72% of the world market	• Used on 27% of the world market
• Open-source operating system	• Closed-source operating system

- Android uses open-source software, which means the programming code can be read or changed by anyone.
- Apple's iOS is closed, which means it can't be seen or changed by the public.
- Both Android and iOS perform the same basic functions, such as messaging, web access, video chat and touch functions.

• أندرويد برنامج مفتوح المصدر؛ ما يعني أنه يمكن لأيِّ شخص قراءة شفرة البرمجة أو تغييرها.
• في حين لا يمكن لعامة الناس رؤية شفرة البرمجة الخاصة بنظام تشغيل Apple iOS المغلق أو تغييرها.
• يؤدِّي كلٌّ من نظام أندرويد ونظام تشغيل iOS الوظائف الأساسية نفسها؛ مثل: إرسال الرسائل، والاتصال بشبكة الإنترنت، والدردشة عبر الفيديو، والعمل بخاصية اللمس.

Cutting-Edge Operating Systems

- Other types of operating systems power (run) different types of cutting-edge technologies.

For example:

1. The Robot Operating System (ROS): is open-source software for building robot applications.
2. There are multiple operating systems powering self-driving cars, including those developed by Apple, Microsoft, and Google, as well as individual car companies.

أنظمة التشغيل المُتطوِّرة:

• تُشغِّل أنواع أخرى من أنظمة التشغيل أنواعًا مختلفة من التكنولوجيات المتطوِّرة، على سبيل المثال:
نظام تشغيل الروبوت، وهو برنامج مفتوح المصدر لبناء تطبيقات الروبوت.
• وهناك العديد من أنظمة التشغيل التي تُشغِّل السيارات ذاتية القيادة، وتتضمَّن تلك التي طوَّرتها شركات أبل، ومايكروسوفت وجوجل، وكذلك شركات السيارات الخاصة.



Programming Languages

Programming languages

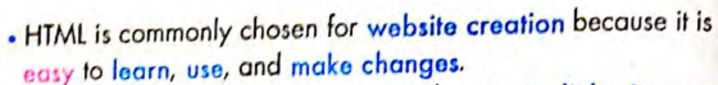
- Instructions for a computer are given in code.

• لغات البرمجة تُعطي الأوامر لجهاز الكمبيوتر على هيئة شفرة.

- Over time, programming languages have evolved from simple machine language (binary) to high-level human-like languages.
- Computer languages often share similarities, so once you learn one, it is easier to learn others.
- Programmers choose a language based on the purpose.
- Programming languages are usually open source. Anyone can see, modify, or distribute the code.
- Programmers use Hyper Text Markup Language (HTML) to create web pages.

• وبمرور الوقت، تطوّرت لغات البرمجة من لغة الآلة البسيطة (النظام الثنائي) إلى لغات عالية المستوى شبيهة باللغة التي يفهمها البشر. وغالبًا ما تتشابه لغات الكمبيوتر؛ لذلك بمجرد أن تتعلم لغة واحدة، يتيسَّر لك تعلُّم اللغات الأخرى.
• يختار المبرمجون اللغة المناسبة بناءً على الهدف، وعادة ما تكون لغات البرمجة مفتوحة المصدر؛ حيث يمكن لأيّ شخص رؤية الشفرة أو تعديلها أو توزيعها لإنشاء صفحات الويب.

HTML



- HTML is commonly chosen for website creation because it is easy to learn, use, and make changes.
- It allows creators to add elements such as texts, links, images, audios, and even videos to their web pages.
- It is compatible with all the major web browsers.

• يشيع اختيار HTML لإنشاء مواقع الويب؛ لأنها سهلة التعلم والاستخدام وإجراء التغييرات.
• تسمح هذه اللغة للمبتكرين بإضافة عناصر مثل: النصوص، والروابط، والصور، والمقاطع الصوتية، ومقاطع الفيديو، إلى صفحات الويب الخاصة بهم، وهي ملائمة لكل مُتصفِّحات الويب الكبرى.

- Most computers and apps function well regardless of the operating system and programming language used.
- You may develop preferences over time, but you're most likely to notice differences when you directly compare how a website or an app looks on different devices or on different operating systems.

• تعمل معظم أجهزة الكمبيوتر والتطبيقات بشكل جيِّد؛ بغض النظر عن نظام التشغيل ولغة البرمجة المُستخدَمة. وبمرور الوقت، قد يصبح لديك تفضيلات، ولكن من المرجَّح أن تلاحظ اختلافات عندما تقارن بصورة مباشرة بين شكل موقع إلكتروني أو تطبيق على الأجهزة المختلفة أو على أنظمة تشغيل مختلفة.

Exercises on Lesson 7

1 Choose the correct answer:

1. The .... is the software that manages a computer's functions.
   a. programming language b. operating system c. Excel
2. The most popular operating system for computers worldwide is ....
   a. Android b. macOS c. Windows
3. The most popular operating system for mobiles worldwide is ....
   a. Windows b. Android c. Apple iOS
4. The .... runs a computer's software and hardware.
   a. operating system b. CPU c. hardware
5. Instructions for a computer are given in the form of a/an ....
   a. word file b. code c. audio
6. The .... allows a user to communicate with the computer without knowing computer languages.
   a. operating system b. hardware c. compiler
7. .... is the mobile operating system that runs on iPhone.
   a. Android b. iOS c. Linux
8. .... is an operating system for Apple computers.
   a. Windows b. macOS c. iOS
9. .... manages accessible devices, such as screen readers and magnifiers.
   a. Windows b. Word c. The hardware
10. MacOS is an operating system developed by ....
    a. Microsoft b. Apple c. Google
11. Windows is an operating system developed by ....
    a. Microsoft b. Apple c. Google

12. There are many operating systems for computers, such as Windows and ....
   a. iOS b. Android c. Linux
13. .... is an open-source operating system for mobile devices.
   a. Android b. iOS c. macOS
14. .... is a closed-source operating system for mobile devices.
   a. Android b. Apple iOS c. Windows
15. .... software means that the programming code can be read or changed by anyone.
   a. Open-source b. Closed-source c. Both of the previous
16. .... is an open-source software for building robot applications.
   a. iOS b. ROS c. Android
17. Programming languages have evolved from .... to high-level languages.
   a. machine languages b. very high languages c. mild languages
18. One of the functions of mobile operating systems is ....
   a. messaging b. touch c. both of the previous

2 Put (✓) or (✗):

1. Most computers come preloaded with an operating system. ( )
2. Accessing the web is not one of the basic functions of operating systems. ( )
3. Android is an open-source operating system. ( )
4. Linux is the most popular operating system all over the world. ( )
5. HTML is commonly used to create web pages. ( )
6. Operating systems manage software only. ( )
7. The operating systems Android and iOS perform the same basic functions. ( )
8. Windows is open-source software that can be edited by anyone. ( )

9. Programmers choose a language based on the purpose of the program. ( )
10. Windows is an operating system used on 15% of computers. ( )
11. Apple iOS is closed-source software which cannot be changed by the public. ( )
12. The similarities between programming languages make them easy to learn. ( )
13. Self-driving cars don't need operating systems to perform. ( )
14. Programming languages are usually closed sources. ( )
15. Closed-source software means the code can be read and changed by anyone. ( )
16. HTML isn't compatible with all the major web browsers. ( )
17. There are multiple operating systems powering self-driving cars. ( )

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1. MacOS	a. means that anyone can view and modify the software.
2. iOS	b. is the most popular mobile operating system worldwide.
3. The operating system	c. runs on iPhone and is used on 27% of the world market.
4. Open-source software	d. is an operating system for Apple computers.
5. Android	e. is the software that manages a computer's functions.

1. .... 2. .... 3. .... 4. .... 5. ....

Lesson 8

Website Design

HTML Tags

HTML

- Hyper Text Markup Language (HTML) is the standard programming language used to create static web pages.
- It describes the structure of a web page.

• هي لغة البرمجة القياسية المُستخدَمة في إنشاء صفحات الويب، وهي تصف هيكل صفحة الويب.

HTML Elements

HTML consists of a series of elements, such as:

Headings | Paragraphs | Links | Images

- These are the building blocks of web pages.

• HTML تتكوَّن من سلسلة من العناصر الأساسية لإنشاء هذه الصفحة، مثل: العناوين، والفقرات، والروابط، والصور.
• هذه هي المُكوِّنات الأساسية لصفحات الويب.

- Web browsers read HTML documents and display the content according to the HTML tag.

Tags have three main parts:

An opening tag | The content | A closing tag

• تقرأ مُتصفِّحات الويب مستندات مكتوبة بلغة HTML، وتعرض المحتوى وفقًا لوسم HTML، وتتكوَّن الوسوم من ثلاثة أجزاء رئيسية: وسم البداية، والمحتوى، ووسم النهاية.

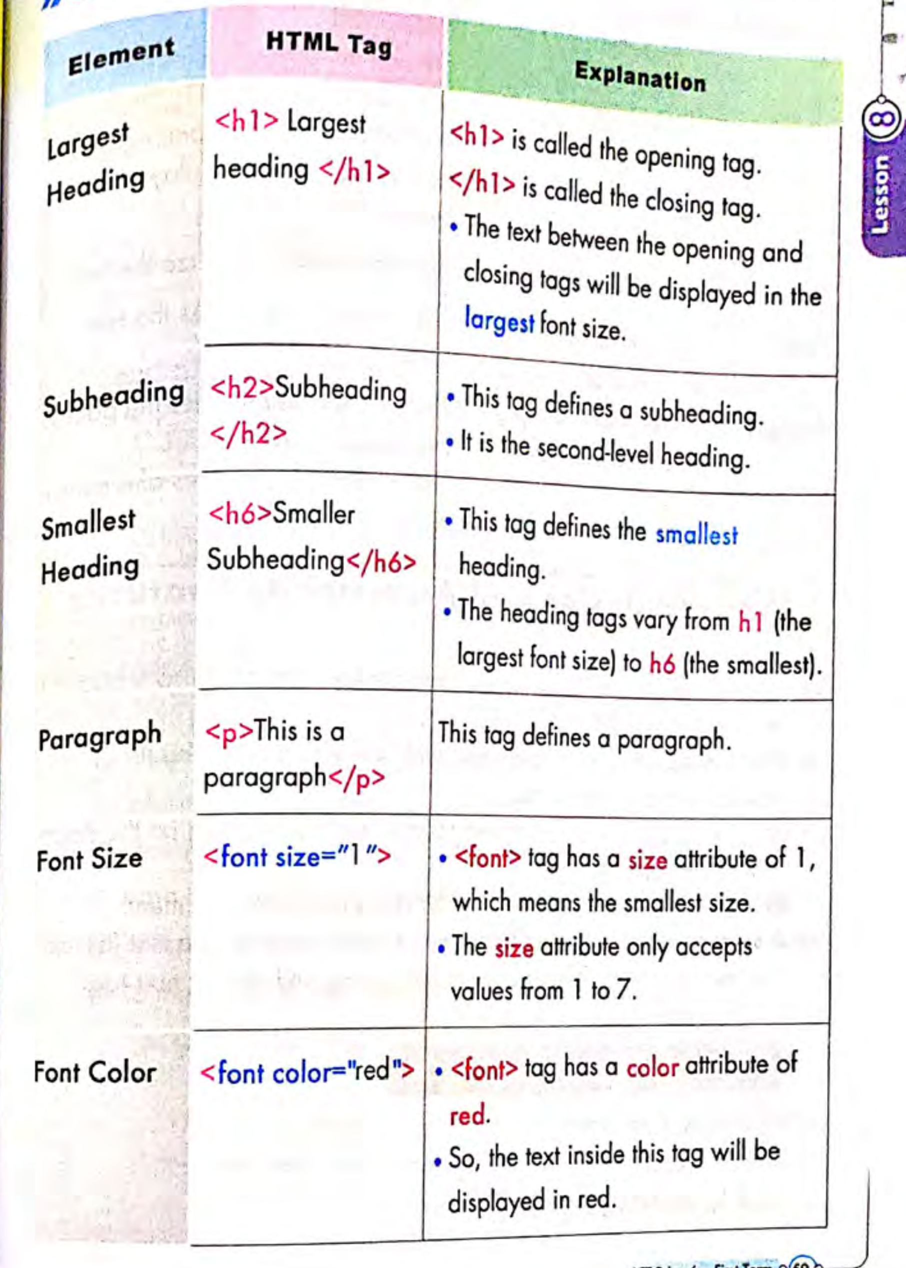


معلومات توضيحية إضافية خارج الكتاب المدرسي

While many HTML tags consist of an opening and a closing tag, some tags known as void elements only have an opening tag. An example of void elements is <img>.



Some examples for HTML tags:



Element	HTML Tag	Explanation
Largest Heading	Largest heading	is called the opening tag. is called the closing tag. • The text between the opening and closing tags will be displayed in the largest font size.
Subheading	Subheading	• This tag defines a subheading. • It is the second-level heading.
Smallest Heading	Smaller Subheading	• This tag defines the smallest heading. • The heading tags vary from h1 (the largest font size) to h6 (the smallest).
Paragraph	This is a paragraph	This tag defines a paragraph.
Font Size	<font size="1">	• <font> tag has a size attribute of 1, which means the smallest size. • The size attribute only accepts values from 1 to 7.
Font Color	<font color="red">	• <font> tag has a color attribute of red. • So, the text inside this tag will be displayed in red.

Hyperlink	 Visit EKB 	• The <a> tag is used to create a hyperlink. • The href attribute specifies the URL of the link. • The text between the opening and closing tags will be displayed as the hyperlink.
Italics	<i>Italics text</i>	• <i> tag is used to italicize the text.
Bold	Bold text 	• The <strong> tag makes the text bold.
Image	<img src="car.jpg" alt="self-driving car">	• The src attribute provides the path to the image. • The alt attribute provides alternative text for the image.

Website Design and Accessibility Features

- HTML elements break up web pages to make them easier to scan, read, and navigate.
- HTML code can also help people with low vision to distinguish between parts of a web page.
  1. Without HTML tags, a screen reader reads everything on the page without stopping.
  2. With HTML tags, a screen reader stops after every element.
- A screen reader will describe an image only if an alternate text (alt text) has been included. This requires an image tag and an "alt text tag."

To see web page alt-text:

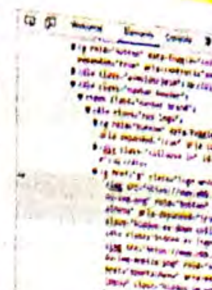
1. Right-click on an image.
2. Select "inspect."
3. Look for the HTML tag "alt."











تصميم موقع إلكتروني ومزايا إمكانية الوصول:

- تُقسِّم عناصر لغة HTML صفحات الويب؛ لتسهيل إمعان النظر فيها وقراءتها وتصفُّحها.
- تساعد شفرة لغة HTML أيضًا الأشخاص ضعاف البصر على التمييز بين أجزاء صفحة الويب.
- فمن دون وسوم لغة ترميز النص التشعبي، يقرأ قارئ الشاشة كل شيء معروض على الصفحة من دون توقُّف.
- وباستخدام وسوم لغة ترميز النص التشعبي، يتوقَّف قارئ الشاشة بعد كلُ عنصر.
- ولن تصف شفرة لغة HTML صورة إلا إذا أُدرجت شفرة النص البديل، وهذا يتطلَّب وَسم صورة ووَسم النصّ البديل لمشاهدة النص البديل لصفحة الويب، انقر بزر الماوس الأيمن على إحدى الصور وحدِّد «فحص». ابحث عن علامة «alt».

NOTES:

1. A large heading at the top of the page catches the attention.
2. Subheadings make the text easy to scan, so a reader can find the information they want.
3. Text broken up into paragraphs makes it easy for the reader to scan for the information they want.
4. Images also attract the attention and can trigger different emotions.
5. To make the images accessible, add image and alt-text tags.

- العنوان الكبير في أعلى الصفحة يلفت الانتباه، والعناوين الفرعية تجعل النص من السهل مسحه ضوئيًا؛ حتى يتمكَّن القارئ من العثور على المعلومات التي يريدها.
- النص المقسم إلى فقرات يجعل من السهل على القارئ مسح المعلومات التي يريدها.
- تجذب الصور أيضًا الانتباه، ويمكن أن تثير مشاعر مختلفة، ولتسهيل الوصول إلى الصور، أضف علامات الصور والنص البديل.



Exercises on Lesson 8

1 Choose the correct answer:

1. HTML consists of a series of elements, such as links, images and ....
   a. headings b. paragraphs c. both of the previous
2. .... is the standard programming language used to create web pages.
   a. HTML b. Python c. C++
3. The HTML tag that is used to create a paragraph is ....
   a. <h> b. <a> c. <p>
4. HTML tags have .... main parts.
   a. two b. three c. four
5. To make the images accessible on web pages, add .... to <img> in HTML.
   a. alt-text b. meta c. title
6. The .... tag is used to create the largest heading in HTML.
   a. <h1> b. <h6> c. <L1>
7. To create the smallest heading in HTML, use the .... tag.
   a. <h1> b. <h6> c. <S1>
8. Large headings are placed at the .... of the web page to catch the attention.
   a. middle b. bottom c. top
9. The .... tag is used to create a hyperlink in HTML.
   a. <a> b. <h> c. <L>
10. HTML tags consist of an opening tag, a closing tag and ....
    a. the content b. comments c. attributes
11. The .... tag is used to italicize a text in HTML.
    a. <h> b. <b> c. <i>
12. To see web page alt-text, right click on an image and select ....
    a. open b. inspect c. properties
13. To make the text bold in HTML, you can use .... tag.
    a. <bold> b. <strong> c. <s>
14. .... read HTML documents and display the content according to the HTML tag.
    a. Web browsers b. Web servers c. Devices
15. The href attribute is used with <a> tag to create a/an .... in HTML.
    a. paragraph b. image c. hyperlink
16. With HTML tags, a screen reader .... after every element in the web page.
    a. repeats b. stops c. continues
17. The .... attribute is used to provide alternative text for the image in HTML.
    a. href b. alt c. img
18. Adding .... to web pages make the text easy to scan, so a reader can find the information easily.
    a. images b. subheadings c. music

2 Put (✓) or (✗):

1. HTML tags consist of four main parts. ( )
2. HTML is the standard programming language used to create dynamic web pages. ( )
3. HTML includes only headings and paragraph elements. ( )
4. In HTML, the <i> tag is used to display text in italics. ( )
5. To make the text bold, you can use the <bold> tag in HTML. ( )



6 A large heading at the top of the page catches the attention. ( )
7 </h6> is an opening tag to display the smallest heading in HTML. ( )
8 Subheadings font size is larger than the heading. ( )
9 HTML code can help visually impaired people distinguish between parts of a web page. ( )
10 Web browsers have difficulty reading HTML documents. ( )
11 To make the images accessible, add image and alt-text tags. ( )
12 Without HTML tags, a screen reader stops after every element. ( )
13 The <h1> tag is used to create a paragraph in HTML. ( )
14 Adding images to web pages attracts the attention and triggers different emotions. ( )
15 <img src="car.jpg" alt="self-driving car"> is used to display the image in HTML. ( )
16 When a text is organized into paragraphs, it allows readers to find information quickly. ( )

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 <strong>	a. It defines a paragraph in HTML.
2 <h1>	b. It is used to create a hyperlink in HTML.
3 <a href= " " >	c. It is used to make the text bold in HTML.
4 <i>	d. It is used to make the text italics in HTML.
5 <p>	e. It is used to create the largest heading in HTML.

1 .... 2 .... 3 .... 4 .... 5 ....

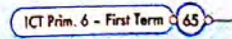
Summary on Theme 1



Role of ICT in Our Life

Lesson 1

- Mr. Kartik Sawhney is a National Geographic Explorer and a computer expert.
- He uses technology to empower people of determination.
- His Bachelor's and Master's degrees in Computer Science at Stanford University, California, in the US.
- His studies focused on artificial intelligence (AI) and human-computer interaction.
- Mr. Sawhney created an app that converts graphs into audio frequencies.
- Mr. Sawhney has received national and international awards.
- Mr. Sawhney co-founded istemai.com (I-Stem) which provides software that changes digital texts into a format that can be easily used by the blind and visually impaired.
- The I-Stem platform includes mentorship and employment opportunities for people of determination.
- The platform is supported by UNICEF, Microsoft, and the National Geographic.
- Volunteer mentors can help people of determination with resume writing, job interview preparation and career-related questions.
- Egypt supports people of determination in many ways.
- There are several ways to create a website using platforms and coding languages.
- HTML is a programming language that allows web developers to arrange the various parts of their website using less codes.
- HTML is relatively easy to learn and runs on all browsers.
- HTML is best used for static web pages.
- Some websites use dynamic web design languages, such as JavaScript, PHP, or Python.
- Kartik Sawhney programs in Python, but he has also programmed in C# and C++.





Lesson 2

- **Networks:** They are groups of people or things that are connected to each other for a common purpose.
- **Computers:** They are electronic devices that create, process and store information.
- **Types of computers:**
  1. Personal computers, such as desktop computers and laptops
  2. Mobile devices, such as smartphones, tablets and e-readers
- **Types of networks:**
  1. Wired networks: They use cables that are plugged into ports.
  2. Wireless networks: They connect devices without wiring using radio waves or Wi-Fi.
- **Network devices:**
  1. Server: It's a computer which provides services to other computers.
  2. Modem: It's a device that connects a LAN to the Internet.
  3. Hub: It allows wired devices to connect to a network and pass information to all the devices on that network.
  4. Switche: It sends data to a specific device over a network.
  5. Router: It connects a modem to different networks; it functions as a gateway.
- Switches are intelligent devices, but hubs are unintelligent.
- **Artificial intelligence (AI):** It is a machine's intelligence that can be used to solve problems.
- **Examples of AI on your devices:** navigation, voice recognition, virtual assistants, holograms
- **Holograms:** It is a 3-dimensional (3D) image that you can see without the use of special glasses or equipment.
- If you look at a regular 3D image without special 3D glasses, it will appear as a 2D image.

Lesson 3

- **Augmented reality (AR)** combines the real world with a virtual world by adding computer-generated images.
- **Virtual reality:** It is a simulated 3D environment that allows users to explore and interact with the surroundings, as if they were in reality.
- To experience VR, users wear a VR headset that provides 360-degree views.
- A cardboard VR headset is an inexpensive way to experience VR.
- **Artificial intelligence (AI):** It is the ability of a machine such, as a computer, to think and learn.
- **Example of using AI:** A smartphone or email program that predicts the next word, facial recognition, filtering spam mail and matching a paying passenger with an available driver.
- Futuristic technologies can improve the lives of people of determination.

Lesson 4

- **Cutting edge technology:** It's the newest and most advanced version of a service or product, such as: artificial intelligence (AI), augmented reality (AR) and virtual reality (VR).
- **Assistive technology:** It helps people of determination with tasks they find challenging, such as: screen magnification software, hearing aids, speech-to-text and text-to-speech programs.
- **Smartgloves:** They empower deaf people to translate their signs in real time to spoken or text output.
- **User experiences:** Describe how people use and interact with a product, and how they evaluate their experiences. It may be positive or negative.
- There are 7 factors that affect UX in the opposite figure.

- User experience is interlinked with the development of products and services.
- The goal of cutting-edge assistive technology is to improve someone's independence and to be included in society.

Lesson 5

Command / OS	Copy	Cut	Paste
• Windows	• Ctrl + C	• Ctrl + X	• Ctrl + V
• MacOS	• Cmd + C	• Cmd + X	• Cmd + V

- Search engines help people to search Internet websites based on the keywords and phrases.
- They are user-friendly, very fast, and often give many results.
- Databases: They are collections of information which are typically stored in a computer system and can be accessed, for free, through a school or library.
- A database is a good place to search for information from journals, newspapers, and reference books.

General Database	Subject Database
• It covers many subjects. • EX: EKB	• It covers only one subject, such as business or law. • Any results will be specific to your topic.

- Library catalog: It is a database which includes all the items owned by a library.
- When you search any database:

1. Use a keyword search.
2. Review the results.
3. You can narrow a search by using fields like author or journal title.

Lesson 6

- Mobile devices include smartphones, tablets, and e-readers.

Smartphones and Tablets	E-readers
• They surf the web and check emails. • They often have high-quality cameras, speakers, and screen resolution.	• They look like tablets, but are mainly used for reading books.

- Mobile devices are portable and can access the Internet and function by touch.
- They can be held in landscape or portrait mode, laid flat.
- Mobile devices help students in learning beyond the classroom, for example:

1. Creating short videos or taking photos for projects.
2. Scanning QR codes to access content.
3. Using online post-it walls, shared class forums, or group chats.
4. Listening to podcasts, reviews of video games, and accessing learning apps.

- Some say easy access to information has decreased the thinking skills, social interaction and people's attention span.
- Small screens can make reading and viewing graphics difficult.
- A speech assistance app can help a non-verbal student participate in a class, where people can buy and sell products.

Lesson 7

- Operating system (OS): It is the software that manages a computer's functions. such as memory, drives, printers, and other devices.
- OS manages accessible devices, such as screen readers and magnifiers.
- OS runs a computer's software and hardware.
- OS acts as a translator; it translates user communication to computer languages.
- Computer operating systems:

Microsoft Windows	MacOS	Linux and Chrome OS
• It's the most popular worldwide. • It's used on 75% of computers.	• It runs on Apple computers. • It's used on 15% of the world market.	• It's used on about 2-3% of the market.

SUMMARY on Theme 1

» Mobile operating systems:

Android	Apple iOS
• The most popular worldwide • Used on 72% of the world market • Open-source operating system	• Runs on iPhone • Used on 27% of the world market • Closed-source operating system

» Cutting-edge operating systems:

1. The Robot Operating System (ROS): is an open-source software for building robot applications.
2. Operating systems powering self-driving cars

» Programming languages: Instructions to a computer are given in codes.

» Programming languages have evolved from simple machine language (binary) to high-level human-like languages.

» Programming languages are usually open-source.

» HTML is compatible with all the major web browsers.

Lesson 8

» Hyper Text Markup Language (HTML) is the standard programming language used to create static web pages.

» HTML consists of a series of elements such as: headings, paragraphs, links and images.

» Web browsers read HTML documents and display the content according to the HTML tag.

» HTML tags have three main parts: an opening tag, the content and a closing tag.

» Without HTML tags, a screen reader reads everything on the page without stopping.

» With HTML tags, a screen reader stops after every element.

» A screen reader will describe an image **only** if alternate text (alt text) has been included.

» Images and large headings at the top of the page catches the attention.

» Subheadings make the text easy to scan.

» Text broken up into paragraphs makes it easy for the reader to scan the information.

Revision on Theme 1 Role of ICT in Our Life



1 Choose the correct answer:

1. .... technology helps people of determination with tasks they find challenging.
   a. Assistive b. Cutting-edge c. Virtual
2. HTML is used to create .... web pages.
   a. static b. dynamic c. both of them
3. .... are computers that have large amounts of data storage.
   a. Switches b. Servers c. Hubs
4. Instructions to a computer are given in the form of a ....
   a. Word file b. code c. video
5. .... databases cover only one subject, such as business or law.
   a. Electronic b. General c. Subject

2 Put (✓) or (✗):

1. Wireless networks connect devices with physical wiring and cables. ( )
2. Artificial intelligence is one of the cutting-edge technologies. ( )
3. Self-driving cars don't need an operating system to perform. ( )
4. To make the images accessible, add the image and alt-text tags. ( )
5. A cardboard VR headset is an expensive way to experience virtual reality. ( )

3 Complete the following sentences from the words between the brackets:

(cut - E-readers - post-it walls - EKB - Smartgloves)

1. .... is an example of a general database.
2. .... look like tablets, but are mainly used for reading books.

3. The shortcut "Ctrl + X" is used to .... text in windows.
4. .... translate sign language to speech or text.
5. Online .... on mobile devices provide greater opportunities for collaboration between students.

Model Exam 2

1 Choose the correct answer:

1. .... pass information to a specific device over a network.
   a. Switches b. Hubs c. Modems
2. .... is an operating system for Apple computers.
   a. Windows b. MacOS c. iOS
3. Kartik Sawhney studied .... in his Bachelor's and Master's degree
   a. Computer Hardware b. Computer Science c. Science
4. To experience virtual reality, users often wear ....
   a. 3D glasses b. VR headsets c. AR headsets
5. You can use mobile devices to scan .... and access related video, audio, and texts.
   a. PIN codes b. podcasts c. QR codes

2 Put (✓) or (✗):

1. Futuristic technologies can't improve the lives of people of determination. ( )
2. Modern mobile devices function by touch. ( )
3. To make a text bold, you can use <bold> tag in HTML. ( )
4. Assistive technology helps people of determination to be included in society. ( )
5. User experience is always positive. ( )

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1. MacOS	a. cover only one subject and any results will be specific to your topic.
2. QR codes:	b. are how people feel about a product.
3. Subject databases	c. Scanning it can help students to access information quickly and easily.
4. User experiences	d. is an operating system for Apple computers.
5. Futuristic technology:	e. such as artificial intelligence, augmented reality and virtual reality.

1. ...... 2. ...... 3. ...... 4. ...... 5. ......

Model Exam 3

1 Choose the correct answer:

1. Blind people can listen to texts uploaded to istemai platform using ....
   a. braille terminal b. screen readers c. hearing aids
2. The HTML tag that is used to create a paragraph is ....
   a. <h> b. <a> c. <p>
3. .... connect devices to a network and send data to all devices.
   a. Switches b. Hubs c. Modems
4. You can use the shortcut "Ctrl + C" to ...... a text or an image in Windows.
   a. copy b. cut c. paste
5. .... are used to surf the web and check emails, like PCs.
   a. Smartphones and tablets
   b. Cameras and speakers
   c. Keyboards

2 Put (✓) or (✗):

1. HTML is used for creating dynamic web pages. ( )
2. Augmented reality helps students become active participants in learning. ( )
3. Cutting-edge assistive technology has no effect on people of determination. ( )
4. Android is an open-source operating system. ( )
5. EKB is an inaccurate source of information. ( )

3 Complete the following sentences from the words between the brackets:

(Cutting-edge technology – Library catalog – iOS – Assistive technology – Android)

1. .... helps people of determination with tasks they find challenging.
2. .... runs on iPhone and is used on 27% of the world market.
3. .... is a database which includes all the items owned by a library.
4. .... is the most popular mobile operating systems worldwide.
5. .... is the latest and most advanced technology.

Model Exam 4

1 Choose the correct answer:

1. A computer learns by .... provided examples.
   a. analyzing b. storing c. saving
2. .... describes how people interact with and evaluate a product.
   a. Futuristic technology b. User experience c. Virtual reality
3. The .... tag is used to create a hyperlink in HTML.
   a. <a> b. <h> c. <L>
4. When conducting a digital search, make sure the information you get is ....
   a. credible b. biased c. unreliable

5. HTML tags have .... main parts.
   a. two b. three c. four

2 Put (✓) or (✗):

1. Windows is an operating system used on 15 % of computers. ( )
2. Subheadings font size is larger than headings. ( )
3. The Miracle Child "Rania Saleh" is a programmer with Down Syndrome. ( )
4. The shortcut "Cmd + X" is used to cut a text or an image in Windows. ( )
5. It is recommended to use a keyword to conduct a database search. ( )

3 Complete the following sentences from the words between the brackets:

(VR – AR – Mobile devices – AI – HTML)

1. .... is a simulated 3D environment that allows users to interact with the surroundings.
2. .... is the ability of a machine to think and learn.
3. .... are portable and can be held in landscape or portrait mode.
4. .... adds computer-generated images to show a 3D model of what looks like the real world.
5. .... is the standard programming language used to create web pages.

Model Exam 5

1 Choose the correct answer:

1. .... is a machine's intelligence that can be used to solve problems.
   a. Artificial intelligence b. Hologram c. Switch
2. .... work as gateways and connect a modem to different networks.
   a. Switches b. Hubs c. Routers

3. To make the text bold in HTML, you can use .... tag.
   a. <bold> b. <strong> c. <s>
4. A 3D image that you can see without the use of special glasses is called ....
   a. artificial intelligence b. hologram c. navigation
5. Mobile devices can be used in .... mode depending on the required task.
   a. portrait b. landscape c. both of them

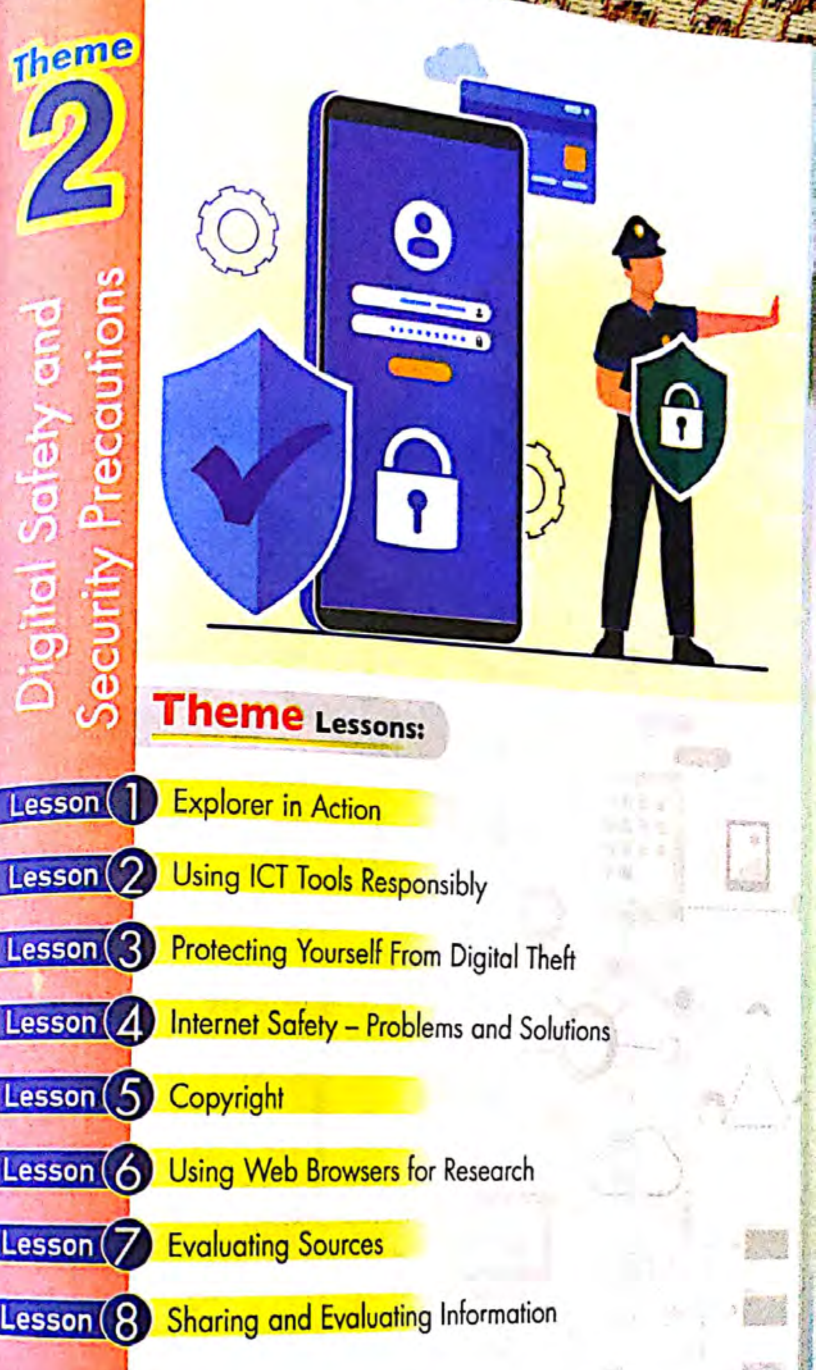
2 Put (✓) or (✗):

1. Kartik Sawhney is a computer expert. ( )
2. There is no difference between smartphones and e-readers. ( )
3. Artificial intelligence can run in the background of programs to filter spam mails. ( )
4. Operating systems manage only software. ( )
5. Windows is an open-source software which can be edited by anyone. ( )

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1. EKB	a. is used to create the smallest heading in HTML.
2. <h1>	b. is an open-source operating system for mobile devices.
3. Android	c. is an example of a general database.
4. Search engines	d. are used to search on the Internet using keywords.
5. <h6>	e. is used to create the largest heading in HTML.

1. .... 2. .... 3. .... 4. .... 5. ....



Theme 2

Digital Safety and Security Precautions



Theme Lessons:

- Lesson 1 Explorer in Action
- Lesson 2 How to Deal With Electronic Games
- Lesson 3 Protecting Yourself From Digital Theft
- Lesson 4 Cyper Security
- Lesson 5 Copyright and Electronic Financial Trading
- Lesson 6 Cloud Storage of Files
- Lesson 7 Cloud Computing Applications

Spotlight on Theme 2

In this theme, you will learn about the importance of taking digital safety and security precautions when dealing with the Internet and digital devices, and how to evaluate digital sources.

You will also complete a project, presenting an issue that is important to young Egyptians and making use of what you have learned.



Lesson 1

Explorer in Action

Just for Read

Raghda (Didi) El-Behaedi

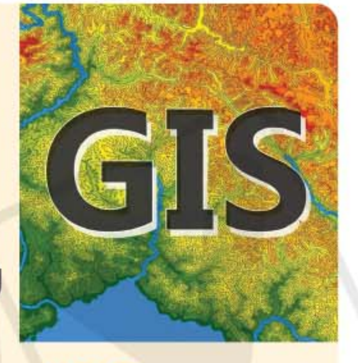


- She is a National Geographic Explorer.
- She is working towards a PhD in Egyptian Archaeology at the University of Chicago in the US.
- Ms. El-Behaedi has worked as a remote sensing research consultant at NASA.

• الآنسة ديدي البيحايدي مُستكشِفة في ناشونال جيوجرافيك.
• وهي تعمل من أجل الحصول على الدكتوراه في علم الآثار المصرية بجامعة شيكاغو بأمريكا.
• كما عملت الآنسة البيحايدي بصفتها خبيرًا استشاريًّا في مجال أبحاث الاستشعار عن بُعد في وكالة ناسا الفضائية.

Ms. Didi's uses technologies in her work.

Geospatial Technologies



- Ms. Didi uses geospatial technologies, such as:
  1. Geographic Information System (GIS)
  2. Remote Sensing (RS)
  3. Global Positioning System (GPS) in her work
- These technologies assist in the geographic mapping and analysis of Earth and human societies.
- She has excavated several archaeological sites in the US, France, and Egypt.
- She has been working in the area of Lake Moeris in Fayum, Egypt, to learn how ancient Egyptians dealt with the decreasing amount of water in the lake.

• الآنسة ديدي تَستخدم تقنيات الجغرافيا المكانية في عملها مثل: GIS, RS, GPS، وتساعد هذه التقنيات في رسم الخرائط الجغرافية للأرض وتحليل الأرض والمجتمعات البشرية.
• نقَّبت الآنسة ديدي في العديد من المواقع الأثرية في كلٍّ من: الولايات المتحدة الأمريكية، وفرنسا، ومصر.
• وقد عملت أيضًا في منطقة بِركة قارون (بحيرة موريس) في محافظة الفيوم بمصر؛ من أجل معرفة كيفية تعامُل المصريين القدماء مع انخفاض نسبة المياه في البحيرة.

Remote Sensing



- Ms. El-Behaedi uses **remote sensors** in her work.
- The remote sensors provide extremely **clear images** of the ground's surface.
- Ms. El-Behaedi uses these images to identify, map, and date the ancient shores of the lake and find previously undiscovered ancient settlements.
- She relied on remote sensing to build **an app** that simulated flooding at Abu Simbel Temple.

• تَستخدم الآنسة البيحايدي أجهزة الاستشعار عن بُعد في عملها.
• توفر أجهزة الاستشعار عن بُعد صُوَرًا واضحة للغاية لسطح الأرض.
• الآنسة البيحايدي تستخدم هذه الصور لتحديد شواطئ البحيرة القديمة، ورسم خرائطها، وتحديد تاريخها، والعثور على المستوطنات القديمة غير المكتشفة من قبل.
• اعتمدت البيحايدي على أجهزة الاستشعار عن بُعد لبناء تطبيق يحاكي الفيضانات في معبد أبو سمبل.

- Remote sensing technology is used in many fields, such as:
  1. Meteorology
  2. Geology
  3. Geography
- The remote sensors are **special cameras** placed on satellites, drones, airplanes, helicopters, and towers.
- Remote sensors collect data about an object **without touching** it.
- So, they collect data from places that are dangerous or impossible to access.
- They collect electromagnetic waves and transform them into signals that are presented as **images** or **numbers**.

• تُستخدم تقنية الاستشعار عن بُعد في العديد من المجالات، مثل:
1 الأرصاد الجوية. 2 الجيولوجيا. 3 الجغرافيا.
• أجهزة الاستشعار عن بُعد هي كاميرات خاصة توضع على الأقمار الصناعية والطائرات بدون طيار والطائرات والمروحيات والأبراج.
• تقوم أجهزة الاستشعار عن بُعد بجمع البيانات حول جسم ما دون لمسه؛ لذا يقومون بجمع البيانات من الأماكن الخطرة أو التي يصعب الوصول إليها.
• كما تقوم بجمع الموجات الكهرومغناطيسية وتحويلها إلى إشارات تُعرض على شكل صور أو أرقام.

Some types of remote sensors

Type	Function
❶ Infrared Remote Sensors أجهزة الاستشعار عن بُعد بالأشعة تحت الحمراء	• They can **penetrate the Earth**, so they are used in archaeological excavations. • يمكنها اختراق الأرض؛ لذلك يتم استخدامها في الحفريات الأثرية.
❷ Radars الرادارات	• They are active sensors that produce and send electromagnetic waves and then measure those waves that reflect back from an object. • They are used to measure the speed of moving objects or monitor their motion. • هي أجهزة استشعار نشطة تنتج وترسل موجات كهرومغناطيسية، ثم تقيس تلك الموجات التي تنعكس من الجسم. • الرادار يُستخدم لقياس سرعة الأجسام المتحركة أو مراقبة حركتها.
❸ Sonar السونار	• Is used for mapping the ocean floor and finding fish. • يُستخدم لرسم خرائط قاع المحيط والعثور على الأسماك.



Explanatory Information

معلومات توضيحية إضافية خارج الكتاب المدرسي

- **Geospatial technologies** are tools that help us understand the world around us by collecting, analyzing, and visualizing location data. Here are some specific examples of geospatial technologies:
- **Geographic Information System (GIS):** GIS is a software program that allows us to store, analyze, and visualize information about places. You can use GIS to do things like finding the shortest path between two points.
- **Remote Sensing (RS)** is a way of collecting information about an area from far away using special cameras and sensors on satellites and airplanes.
- **Global Positioning System (GPS)** is used to find locations; it is commonly used in navigation systems like those in cars and smartphones.

Theme 2

Machine Learning



- Ms. El-Behaedi uses computers to find previously unknown archaeological sites by inputting data about known archaeological sites and programming the computer to look for similar sites.
- This is called "machine learning".
- **Example on machine learning:** If you have used YouTube and received suggestions for other videos you might like. Those videos show up through a data search based on other views.

• تَستخدم الآنسة البيحايدي أجهزة الكمبيوتر لتحليل البيانات والتنبُّؤ بالأماكن التي قد تجد فيها مواقع أثرية مجهولة من قبل، وهي تُدخل بيانات حول المواقع الأثرية المعروفة، ثم تُبرمج جهاز الكمبيوتر للبحث عن مواقع مماثلة، وهذا ما يُسمَّى «التعلُّم الآلي».

• **مثال على التعلُّم الآلي:** إذا سبق لك استخدام موقع يوتيوب وتلقَّيت اقتراحًا لمقاطع فيديو أخرى قد تعجبك؛ إذ تظهر مقاطع الفيديو هذه من خلال البحث عن البيانات بناءً على مشاهدات أخرى.

Laptop and iPad



- Ms. El-Behaedi has published several reports on her discoveries.
- She writes her texts, creates figures, and edits images using her laptop and iPad, then publishes her work in trusted journals.

• نشرت الآنسة البيحايدي العديد من التقارير عن اكتشافاتها. وهي تكتب النصوص، وتُعدِّل الصور باستخدام جهاز الكمبيوتر المحمول وجهاز الآيباد، ثم تنشر أعمالها في مجلات علمية مُوثَّقة.



How does Ms. El-Behaedi protect her information?

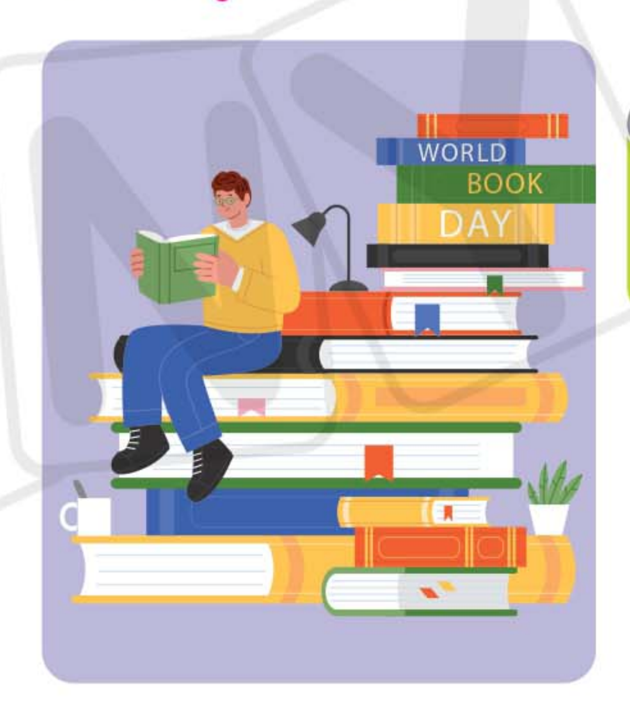
Ms. El-Behaedi protects her information by:

- **Installing an antivirus**
- **Using strong passwords**
- **Backing up data frequently**

• ولكي تحمي الآنسة البيحايدي معلوماتها، تستخدم برامج مكافحة الفيروسات، وكلمات مرور قوية على أجهزتها، كما تحرص على إجراء نَسخ احتياطي لبياناتها بانتظام.

The characteristics of Ms. El-Behaedi as an integral scholar:

1. Learning from other **scholars**.
2. She reads articles in **trusted** digital libraries and academic journals to ensure information is correct.
3. If she refers to other scholars' works in her reports, she uses **citations**.
4. To use images or infographics, she contacts the individual or the institution to **ask for permission**.



• صفات الآنسة البيحايدي بصفتها باحثة متميزة:

1. التعلُّم من الباحثين الآخرين.
2. تقرأ مقالات منشورة في المكتبات الرقمية والمجلات الأكاديمية الموثوقة التي راجعها باحثون آخرون؛ لتضمن أن المعلومات صحيحة.
3. وعندما تشير الآنسة البيحايدي إلى أعمال باحثين آخرين في تقاريرها، فإنها تستخدم التوثيق.
4. وكذلك عند استخدامها صُوَرًا أو رسومات بيانية خاصة بأحد الأشخاص أو المؤسسات، فإنها تتواصل معهم لطلب الإذن.

- Ms. El-Behaedi intends to use the knowledge she has gained in her excavations to help preserve **Egypt's cultural heritage**.
- Because of these important works, like Ms. El-Behaedi's work, we can learn more about our history and how our ancestors dealt with environmental changes.
- Solutions for the past problems could help us solve future issues.

• تعتزم الآنسة البيحايدي استخدام المعرفة والخبرة التي اكتسبتها من خلال عمليات التنقيب التي أجرتها سابقًا؛ للمساعدة في الحفاظ على التراث الثقافي لمصر. ومن خلال الأعمال المهمة، مثل التي تؤدِّيها الآنسة البيحايدي، يمكننا معرفة المزيد عن تاريخنا، وكيفية تعامُل أسلافنا مع التغيُّرات البيئية. كما يمكن أن تساعدنا حلول المشكلات الماضية في حلِّ المشكلات التي تطرأ في المستقبل.

Exercises on Lesson 1

1 Choose the correct answer:

1. Ms. Didi El-Behaedi is a(an) .... at National Geographic organization.
   a. explorer b. teacher c. programmer
2. Ms. El-Behaedi is studying to earn a PhD in .... at Chicago University.
   a. Artificial Intelligence b. Egyptian Archaeology c. Computer Science
3. Ms. El-Behaedi publishes her work in .... journals.
   a. trusted b. untrusted c. both of them
4. Ms. Didi El-Behaedi uses geospatial technologies, such as GPS and ....
   a. GIS b. Remote Sensing c. both of them
5. .... refer to the sources you used in your report.
   a. Opinions b. Citations c. Assumptions
6. The remote sensors are special .... placed on satellites, drones, or towers.
   a. cameras b. computers c. microphones
7. RS is an abbreviation for ....
   a. Remote Sensors b. Robotic System c. Real System
8. Ms. Didi El-Behaedi has worked as a remote sensing .... at NASA.
   a. astronaut b. research consultant c. programmer
9. Remote sensors transform electromagnetic waves reflected from an object and present them as ....
   a. images b. numbers c. both a and b
10. To use images or infographics of someone, you should ....
    a. ask for permission b. share them without permission
    c. ignore the owner

11 Ms. El-Behaedi built an app based on .... that simulated flooding at Abu Simbel Temple.

a. machine learning   b. remote sensing   c. virtual reality

12 .... is used for mapping the ocean floor and finding fish

a. Sonar   b. Radar   c. Both a and b

13 Ms. El-Behaedi uses .... to find previously unknown archaeological sites.

a. drones   b. machine learning   c. cameras

14 Ms. El-Behaedi protects her information using ....

a. antivirus software   b. backup of data   c. both of them

15 Inputting data about known archaeological sites and programming the computer to look for similar sites is called ....

a. remote sensing   b. geospatial technology   c. machine learning

16 GIS is an abbreviation for ....

a. Geographic Information System

b. Global Information Service

c. General Information Software

2 Put (✓) or (✗):

1 Ms. Didi El-Behaedi is an archaeologist. (   )

2 Ms. El-Behaedi doesn't use remote sensors in her work. (   )

3 Good scholars always cite their sources. (   )

4 Ms. El-Behaedi doesn't back up her data. (   )

5 Geospatial technologies assist in the geographic mapping and analysis of Earth. (   )

6 The remote sensors provide clear images of the ground's surface. (   )

7 Ms. El-Behaedi uses images from remote sensors to find the ancient shores of the lake. (   )

8 Remote sensors collect data about an object by touching It. ( )

9 Solutions to past problems couldn't help us solve future issues. ( )

10 Ms. Didi El-Behaedi has studied the ancient Egyptian water management system at Lake Moeris in Fayum, Egypt. ( )

11 You should use weak passwords to protect your data. ( )

12 Ms. Didi El-Behaedi is working to earn a PhD in Egyptian Archaeology from Cairo University. ( )

13 Ms. Didi El-Behaedi hasn't excavated any archaeological sites in Egypt. ( )

14 Infrared remote sensors can penetrate Earth. ( )

15 Ms. El-Behaedi protects her information in many ways. ( )

16 Ms. El-Behaedi uses machine learning to discover unknown archaeological sites. ( )

17 Radars are used to measure the speed of moving objects. ( )

3 Complete the following sentences using the words between the brackets:

(citations - Remote sensors - machine learning - Radars - Explorer)

1 Ms. El-Behaedi is a National Geographic ....

2 You should use .... to refer to others' work in your reports.

3 .... are special cameras placed on satellites, drones, and planes to get clear images about objects.

4 .... are used to monitor the motion of an object.

5 Ms. El-Behaedi uses .... to find previously unknown archaeological sites.

Lesson 2 How to Deal With Electronic games

- Electronic games can help **promote** critical and creative thinking and **encourage** teamwork.
- Playing online games with friends can be a lot of fun, but they can impact health.

- يمكن أن تساعد الألعاب الإلكترونية على تعزيز التفكير النقدي والإبداعي وتشجيع العمل الجماعي.
- يمكن أن تكون ممارسة الألعاب عبر الإنترنت مع الأصدقاء أمرًا ممتعًا للغاية، ولكنها قد تؤثر على الصحة.

Disadvantages of electronic games
عيوب الألعاب الإلكترونية

1. **Physical Dangers**
2. **Psychological Dangers**
3. **Security Dangers**

1 Physical Dangers المخاطر الجسدية

- Playing too much can affect your **sleep cycle**. It may keep you stimulated and prevent you from falling asleep.
- It can cause **eye strain**, cause **back problems** because you stay hunched over while playing, and cause **headaches**.
- There's also a danger of **gaining weight** because you may not be exercising or eating properly while playing electronic games.

- اللعب كثيرًا قد يؤثر على دورة نومك. قد يبقيك محفزًا ويمنعك من النوم.
- كما يمكن أن يجهد عينيك ويسبب مشاكل في الظهر؛ لأنك تظل منحنيًا أثناء اللعب، ويسبب الصداع.
- هناك أيضًا خطر زيادة الوزن؛ لأنك قد لا تمارس الرياضة أو تتناول الطعام بشكل صحيح أثناء ممارسة الألعاب الإلكترونية.



2 Psychological Dangers المخاطر النفسية

- You may become **anxious** and **depressed** because:
  1. You feel lonely in the real world.
  2. You are being bullied online.
- Electronic games can make some people **aggressive**, as some games promote violence.
- Electronic games can prevent some players from **thinking rationally** when facing situations.
- All of these factors can **negatively** affect your relationship with family and friends.

- **قد تُصاب بالقلق والاكتئاب للأسباب التالية:**
  1. تشعر بالوحدة في العالم الواقعي.
  2. تتعرَّض للتنمُّر عبر الإنترنت.
- الألعاب الإلكترونية قد تجعل بعض الأشخاص عدوانيين؛ حيث إن بعض الألعاب تشجع على العنف.
- الألعاب الإلكترونية قد تمنع بعض اللاعبين من التفكير بعقلانية عند مواجهة المواقف.
- كل هذه العوامل يمكن أن تؤثر سلبًا على علاقتك مع العائلة والأصدقاء.

3 Security Dangers المخاطر الأمنية

- Multiplayer games, in particular, can put your security at risk.
- If you share too much **personal information**, strangers may be able to access your name, email, phone number, and address.
- Large gaming communities are filled with **cyberbullies**.
- **Hackers** can cause your information to be leaked, and **viruses** are easily spread.

- الألعاب متعددة اللاعبين -على وجه الخصوص- يمكن أن تُعرِّض أمنك للخطر.
- إذا قمت بمشاركة الكثير من المعلومات الشخصية، فقد يتمكَّن الغرباء من الوصول إلى: اسمك، وبريدك الإلكتروني، ورقم هاتفك، وعنوانك.
- تمتلئ مجتمعات الألعاب الكبيرة بالمتنمرين عبر الإنترنت.
- يمكن أن يتسبب الهاكرز في تسريب معلوماتك وانتشار الفيروسات بسهولة.

Responsible Gaming

To limit the dangers of electronic games:

1. Only play games and chat with people you know and trust.
2. Respect the limits that your parents set to prevent unhealthy gaming habits.
3. Don't use personal information in your usernames and passwords.
4. Don't use a webcam.
5. Make sure that gaming does not replace real-life activities such as spending time with your family, meeting friends, doing homework, maintaining a healthy diet, getting enough exercise or getting enough sleep.
6. When you face danger, tell your parents. They want to help you through family discussions and increased supervision when using the internet.



• **للحدِّ من مخاطر الألعاب الإلكترونية:**

1. مارس الألعاب والدردشة فقط مع الأشخاص الذين تعرفهم وتثق بهم.
2. احترم الحدود التي وضعها والداك لمنع عادات اللعب غير الصحية.
3. لا تستخدم المعلومات الشخصية في اسم المستخدم وكلمات المرور الخاصة بك.
4. لا تستخدم كاميرا الويب.
5. تأكَّد من أن الألعاب لا تحل محل أنشطة الحياة الواقعية مثل: قضاء الوقت مع عائلتك، أو مقابلة الأصدقاء، أو أداء الواجبات المنزلية، أو الحفاظ على نظام غذائي صحي، أو الحصول على قدر كافٍ من التمارين الرياضية أو النوم.
6. عندما تواجه المخاطر أخبر والديك. إنهم يريدون مساعدتك من خلال المناقشات العائلية وزيادة الرقابة عليك عند استخدام الإنترنت.

Exercises on Lesson 2

1 Choose the correct answer:

1. Electronic games can help promote ....
   a. critical thinking b. creative thinking c. both a and b
2. Playing electronic games too much can affect your .... cycle.
   a. sleep b. digestive c. energy
3. One of the dangers of electronic games is .... because you may not be exercising.
   a. hacking b. gaining weight c. bullying
4. Hackers can steal your information and .... can easily spread.
   a. viruses b. books c. videos
5. Large gaming communities are filled with ....
   a. cyberbullies b. doctors c. both a and b
6. Spending a lot of time playing electronic games can cause ....
   a. eye strain b. back problems c. both a and b
7. .... can cause your information to be leaked, and viruses are easily spread.
   a. Cyberbullies b. Hackers c. Friends
8. One of the physical dangers of electronic games is ....
   a. stealing data b. cyberbullying c. headaches
9. One of the psychological dangers of electronic games is ....
   a. eye strain b. being depressed c. cyberbullying
10. You should not share .... because others can access your address, email, and phone number.
    a. games b. news c. personal information

11 Some games promote violence, so this can make some people ....
a. calm b. aggressive c. stupid

12 Playing online games too much can cause .... strain.
a. eye b. nose c. leg

13 Electronic games may make you anxious and depressed because ....
a. you feel lonely in the real world
b. you may being bullied online c. both a and b

2 Put (✓) or (✗):

1 Electronic games can be fun, but they impact health. ( )
2 Feeling lonely in the real world is one of the dangers of electronic games. ( )
3 You should play a lot of electronic games to fall asleep right away. ( )
4 Some electronic games can promote aggression in players. ( )
5 Ignore the limits that your parents set to prevent unhealthy gaming habits. ( )
6 Excessive electronic gaming can lead to headaches. ( )
7 It is recommended to play games and chat with people you don't know. ( )
8 Electronic games can make some people anxious and depressed. ( )
9 Playing games online has no dangers for you. ( )
10 Multiplayer games can put your security at risk. ( )
11 When you face dangers online, you should solve them yourself. ( )
12 Electronic games can prevent some players from thinking rationally. ( )
13 Electronic gaming can have a positive impact on your relationships with others. ( )
14 Use a webcam to limit the dangers of electronic games. ( )
15 You should not use personal information in your usernames and passwords. ( )

3 Complete the following sentences using the words between the brackets:

(aggressive – Back problems – webcam – Cyberbullies – personal information)

1. .... is one of the security dangers of electronic games.
2. Some electronic games promote violence and can make some people ....
3. .... is one of dangers of electronic games because you stay hunched over while playing.
4. Don't use a .... to limit the dangers of electronic games.
5. Don't share ...., such as your name, email, phone number, and address.



Lesson 3 Protecting Yourself From Digital Theft

- It is irresponsible to leave your devices at risk by not taking proper safety precautions.
- You have learned about the importance of strong passwords. Let's look at some more ways you can effectively protect your devices from theft.

- من عدم المسئولية أن تَترُك أجهزتك الخاصة مُعرَّضة للخطر بعدم اتخاذ إجراءات الأمان المناسبة.
- لقد تعرَّفت على أهمية كلمات المرور القوية، فلنُلقِ نظرة على المزيد من طرق حماية أجهزتك من السرقة بشكل فعَّال.

1 Passwords

- Passwords with **8+** random **letters**, **numbers** and **symbols** are the most secure.



- كلمات المرور التي تتكوَّن من: ٨ حروف، وأرقام، ورموز عشوائية أو أكثر، هي الأكثر أمانًا.

2 Multi-factor Authentication (MFA)

- MFA requires at least **two ways** of identifying yourself.
- It is usually through **passwords**, **pins**, and **security codes** or **personal questions**.



- تتطلَّب المصادقة مُتعدِّدة العوامل طريقتين على الأقل لتحديد هُويَّتك، وعادةً ما يتم ذلك من خلال: كلمات المرور، وأرقام التعريف الشخصية، ورموز الأمان أو الأسئلة الشخصية.

3 Fingerprint Authentication

- This type of authentication will **scan** your finger, usually your thumb, as a way of confirming it's you.



- **المصادقة ببصمة الأصابع:** هذا النوع من المصادقة سيُجري مسحًا لإصبعك الإبهام عادةً، كطريقة لتأكيد هُويَّتك.

Theme 2

4 Facial Recognition



- Facial recognition software will scan your face using your device's camera.
- Only your face will allow your device or device's apps to open.

• برنامج التعرُّف على الوجه سيُجري مسحًا لوجهك باستخدام الكاميرا الخاصة بك؛ وبذلك سيسمح لوجهك دون سواه بفتح جهازك أو التطبيقات الموجودة فيه.

5 Full Disk Encryption



- Encryption scrambles your information and can only be accessed on your device if you have set a password.

• التشفير يعمل على تشويش معلوماتك، ولا يمكن الوصول إلى المعلومات على جهازك إلا إذا قمت بتعيين كلمة مرور خاصة بك.

6 Lock When Lost



- Enabling lock mode on your device will allow you to lock it if you lose it, usually by logging in to your Google or iCloud account.

• سيسمح لك وضع القفل التمكيني على جهازك بقفله إذا فقدته، عادةً عن طريق تسجيل الدخول إلى حساب Google أو iCloud بتعيين كلمة مرور خاصة بك.

Data Protection Law in Egypt

1 Companies

- Companies are in particular need to protect their websites and their customers' information.
- In 2020, Egypt formed the Data Protection Law to protect its citizens.
- Companies must report immediately if they've been victims of data theft, and let their customers know immediately as well.

• تحتاج الشركات بشكل خاص إلى حماية مواقعها الإلكترونية ومعلومات عملائها.
• في سنة ٢٠٢٠، أنشأت مصر قانون حماية البيانات الشخصية لحماية مواطنيها.
• يجب على الشركات الإبلاغ على الفور إذا وقعوا ضحية لسرقة البيانات، وإعلام عملائهم مباشرة أيضًا.

2 Individuals

- Individuals should report data theft too.
- If you think your data has been compromised, make sure to tell a parent or trusted adult, they can let the proper authorities know.
- You should also tell the family and friends you communicate with online. This way, they won't open any attachments or click on any links that come from your accounts.

- الأفراد عليهم أيضًا الإبلاغ عن سرقة البيانات. إذا شككت بتعرُّض بياناتك للخطر، احرص على إخبار أحد والدَيك أو شخص بالغ موثوق به؛ إذ يمكنهم إبلاغ السلطات المسئولة.
- كما عليك إخبار أُسرتك والأصدقاء الذين تتواصل معهم عبر الإنترنت. وبهذه الطريقة، لن يفتحوا أيَّ مرفقات أو ينقروا على أيِّ روابط تُرسَل من حساباتك الشخصية.





Exercises on Lesson 3

1 Choose the correct answer:

1. Strong passwords contain at least .... characters.
   a. 4 b. 6 c. 8
2. What does MFA stand for?
   a. Multi-function Application
   b. Multi-factor Authentication
   c. Multi-feature Algorithm
3. .... is a type of authentication that uses your fingerprint to confirm your identity.
   a. Fingerprint authentication
   b. Facial recognition
   c. A password
4. .... law requires companies to use strict security standards to protect their data.
   a. Copyright b. E-marketing c. Data Protection
5. The process that scrambles your information and makes it unreadable to others is called ....
   a. decryption b. compression c. encryption
6. .... requires at least two ways of identifying yourself.
   a. Multi-factor authentication
   b. Fingerprint authentication c. Facial recognition
7. .... scans your face using your device's camera to confirm your identity.
   a. Fingerprint authentication
   b. Facial recognition c. Full disk encryption

8 .... is/are a security method that scramble(s) your information and can only be accessed if you enter a password.
a. Full disk encryption
b. Facial recognition
c. Both a and b

9 .... is a feature that allow you remotely to lock your device if you lose it.
a. Lock when lost b. Facial recognition
c. A password

10 Facial recognition scans your face using your device's .... to confirm your identity.
a. scanner b. printer
c. camera

11 Egypt formed .... law in 2020 to protect its citizens' data.
a. Data Security b. Data Protection
c. Data Privacy

2 Put (✓) or (✗):

1 Strong passwords contain at least 6 characters. ( )
2 If you have been exposed to data theft, you should report it. ( )
3 Full disk encryption allows you to lock your device if you lose it. ( )
4 Data protection is important for individuals only. ( )
5 Fingerprint authentication scans your face using the device's camera. ( )
6 It is irresponsible to leave your devices at risk without protection. ( )
7 It is not important for companies to protect their data. ( )
8 Strong passwords contain letters, numbers and special characters. ( )

9 The facial recognition feature allows only your face to unlock your device. (   )

10 Fingerprint authentication allows you to lock your device if it is lost. (   )

11 Multi-factor authentication (MFA) is not an effective way to protect your accounts. (   )

12 Egypt established the Data Protection Law to protect its citizens. (   )

13 If you've been a victim of data theft, there is no need to report the theft. (   )

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 Full disk encryption	a. is a type of authentication that usually scans your thumb to confirm your identity.
2 Multi-factor authentication	b. is a feature that allows you to lock your device remotely if you lose it.
3 Fingerprint authentication	c. requires at least two ways of identifying yourself.
4 Lock when lost	d. scans your face using your device's camera to confirm your identity.
5 Facial recognition	e. scrambles your information and can only be accessed if you enter a password.

1 .... 2 .... 3 .... 4 .... 5 ....

Lesson 4 Cyber Security

You have learned a lot about online safety choices and strategies. Here is a brief recap.

1. Use safe web browsers, such as Google Chrome.
2. Use anti-virus protection on your devices.
3. Keep your pages private, only allow friends and family to view your social media.
4. Do not communicate with people you don't know or who make you feel uncomfortable.
5. Do not share your personal information online.
6. Use strong passwords and change them every three months.
7. Verify that the websites that you frequent are real, safe, and age-appropriate.
8. Verify the information you find to make sure it is accurate.

لقد تعلَّمت الكثير عن إجراءات الأمان على الإنترنت وإستراتيجياته. فيما يلي مراجعة سريعة:

1. استخدِم متصفحات الإنترنت الآمنة مثل جوجل.
2. استخدِم برامج الحماية من الفيروسات على أجهزتك.
3. حافظ على خصوصية صفحاتك، اسمح فقط لأصدقائك وأُسرتك برؤية صفحات التواصل الاجتماعي الخاصة بك.
4. لا تتواصل مع الأشخاص الذين لا تعرفهم أو الذين يجعلونك تشعر بعدم الارتياح.
5. لا تشارك معلوماتك الشخصية على الإنترنت.
6. استخدم كلمات مرور قوية وغيِّرها كل ثلاثة أشهر.
7. تأكَّدْ من أن المواقع التي تتردَّد عليها حقيقية، وآمنة، ومناسِبة لعمرك.
8. تحقَّقْ من المعلومات التي تجدها للتأكُّد من دقتها.





Types of Cyber Security Threats

1 Malware



- Malware is the **greatest** cyber security threat.
- Scareware is a type of **malware** that pretends to be a **virus alert**.
- Scareware tells you to **click** on the link to help remove it, but the link is **a virus**.
- Mobile malware can be problematic, and using unsecured Wi-Fi can expose you to malware threats.
- **Note:** No matter how cautious you are, you may still get tricked.

البرمجيات الخبيثة

- تعد البرمجيات الخبيثة أكبر تهديد للأمن السيبراني.
- Scareware هو نوع من البرمجيات الخبيثة التي تتظاهر بأنها تنبيه من الفيروسات.
- Scareware يطلب منك النقر على الرابط للمساعدة في إزالة الفيروس، ولكن الرابط عبارة عن فيروس.
- يمكن أن تكون البرمجيات الخبيثة على الأجهزة المحمولة مشكلة، وقد يؤدي استخدام شبكة Wi-Fi غير آمنة إلى تعريضك لتهديدات البرمجيات الخبيثة.
- **ملحوظة:** بغض النظر عن مدى حذرك، ربما ما زلت تتعرَّض للخداع.

2 Spoofing



- **Cyber criminals pretended to be a business or a known person, in order to trick you to**
  1. Provide your information.
  2. Click on an unsafe link.
- **If you click on unsafe links, you are in danger of:**
  1. Having your information compromised.
  2. Money stolen.
  3. Viruses are installed on your devices.

Examples of spoofing:

1. A fake domain pretending to be a business.
2. A fake email account that has the name of a trusted service.
3. Personal acquaintances of yours.

انتحال صفة شخص أو شركة

- **يتظاهر مجرمو الإنترنت بأنهم شركة أو شخص معروف، وذلك لخداعك:**
  1. لتقديم معلوماتك. 2. للنقر على رابط غير آمن.
- **إذا نقرت على روابط غير آمنة، فأنت في خطر:**
  1. تعرُّض معلوماتك لخطر الاختراق. 2. سرقة أموالك. 3. تثبيت الفيروسات على أجهزتك.
- **أمثلة على الانتحال:**
  1. إنشاء نطاق وهمي يتظاهر بأنه شركة تجارية.
  2. حساب بريد إلكتروني مزيف يحمل اسم خدمة موثوقة. 3. أفراد تعرفهم شخصيًا.

How to deal with cyber security threats

- Stay calm, but take **swift** action.
- Inform your contacts immediately so they can avoid opening anything suspicious, so you can protect your contacts from the same cyber threat.
- Use **anti-virus** to do a sweep of your computer and remove any viruses.
- Confirm your **security settings** are up-to-date.
- Change all your passwords, your device password, email, social media, etc. even if you have been hacked only on one particular account.
- Report the threat to a trusted adult. They can report it to an internet service provider or get the authorities involved if needed.
- Creating a **personal online safety plan** can prepare you for potential future cyber threats, such as how to protect your personal devices and information from cyber criminals.

- حافظ على هدوئك، ولكن اتخذ إجراءً سريعًا.
- أبلغ جهات الاتصال الخاصة بك على الفور حتى يتمكنوا من تجنُّب فتح أي شيء مشبوه؛ حتى تتمكن من حمايتهم من نفس التهديد السيبراني.
- استخدم برنامج مكافحة الفيروسات لإجراء مسح لجهاز الكمبيوتر الخاص بك وإزالة أي فيروسات.
- تأكَّد من تحديث إعدادات الأمان الخاصة بك.
- قم بتغيير جميع كلمات المرور الخاصة بك: كلمة مرور جهازك، والبريد الإلكتروني، ووسائل التواصل الاجتماعي، وما إلى ذلك، حتى لو تم اختراقك على حساب واحد فقط.
- أبلغ شخصًا بالغًا موثوقًا به بالتهديد، فيمكنه الإبلاغ عن ذلك إلى مزود خدمة الإنترنت، أو إشراك السلطات إذا لزم الأمر.
- وضع خطة للأمان الشخصي عبر الإنترنت يمكن أن يؤهلك لمواجهة التهديدات السيبرانية المستقبلية المحتملة، مثل كيفية حماية أجهزتك الشخصية ومعلوماتك من مجرمي الإنترنت.

Exercises on Lesson 4

1 Choose the correct answer:

1. Use a/an .... to do a sweep of your computer and remove any viruses.
   a. password b. anti-virus c. firewall
2. Verify the information you find to make sure it is ....
   a. accurate b. false c. untrusted
3. .... is a type of malware that pretends to be a virus alert.
   a. Virus b. Firewall c. Scareware
4. To be safe online, change your passwords every .... months.
   a. one b. two c. three
5. If you exposed to cyber security threat, you should .... it.
   a. ignore b. accept c. report
6. .... is/are cyber criminals pretend to be a business or a known person to trick you.
   a. Maleware b. Hackers c. Spoofing
7. To deal with cyber security threats, stay calm, but take .... action.
   a. slow b. swift c. calm
8. .... is the greatest cyber security threat.
   a. Malware b. Anti-virus c. Firewall
9. A fake domain pretending to be a business is an example of ....
   a. maleware b. spoofing c. virus
10. Using .... is important for cyber security.
    a. anti-virus b. strong passwords c. both a and b
11. Creating a personal online .... plan can prepare you for potential future cyber threats.
    a. safety b. marketing c. annual

2 Put (✓) or (✗):

1. No matter how cautious you are, you may still get tricked. (   )
2. Spoofing is the greatest cyber security threat. (   )
3. Scareware is a type of malware that pretends to be a virus alert. (   )
4. It is safe to click on unknown links. (   )
5. Scareware tells you to click on the link to remove it, but the link is a virus. (   )
6. Unsecured Wi-Fi can expose you to malware threats. (   )
7. To be safe online, you should use safe web browsers. (   )
8. It is not necessary to report the threats to trusted people. (   )
9. You should install anti-virus to protect your device. (   )
10. It is safe to communicate with unknown people online. (   )
11. You should ensure your security settings are up-to-date. (   )
12. If your account has been hacked, it is preferable to change the password of this account only. (   )

3 Write the scientific term:

1. The greatest cyber security threat. (   )
2. A type of malware that pretends to be a virus alert. (   )
3. Cyber criminals pretended to be a business or a known person, in order to trick you. (   )
4. It is used to do a sweep of your computer and remove any viruses. (   )

Lesson 5 Copyright and Electronic Financial Trading

Let's review what copyright (intellectual property rights) means!

- Copyright: It includes written, visual, audio, video, and web materials.
- Intellectual property rights: Means the invention, creation or idea of someone that is protected by law from being copied by someone else.
- Creative Commons: It refers to works that have been granted permission to be shared by the creator.
- Works in data libraries, such as the Egyptian Knowledge Bank (EKB) is already approved for use.
- Egypt considers works to be in the public domain if the creator has been deceased for at least 50 years. No creator permission is required.

لنُراجِع تعريف حقوق الطبع والنشر (الحقوق الفكرية)!

- **تشمل حقوق الطبع والنشر:** المواد المكتوبة والمرئية والسمعية، ومقاطع الفيديو، والمواد من شبكة الإنترنت.
- **حقوق الملكية الفكرية:** تعني أن أي اختراع أو إبداع أو فكرة لشخص ما تكون محمية بالقانون من أن ينسخها شخص آخر.
- **المشاع الإبداعي:** يشير إلى الأعمال التي مُنح مبتكرها الإذن بمشاركتها.
- الأعمال الموجودة في مكتبات البيانات -مثل بنك المعرفة المصري- سبق أن تمَّت الموافقة على استخدامها.
- تَعتبِر مصر الأعمال مِلْكًا عامًّا إذا كان المؤلِّف متوفيًا منذ ٥٠ عامًا على الأقل، وهذه لا تحتاج إذنًا من المُؤلِّف.

The Concept of Electronic Financial Trading

مفهوم التداول المالي الإلكتروني

A Stock Exchange

- It is a market where buyers and sellers deal in units of company stocks.
- These stocks are called **shares**.

- **البورصة:** هي سوق يتعامل فيه البائعون والمشترون في وحدات من أسهم الشركة.
- تُسمى هذه الأسهم حِصَصًا.

- **The Egyptian stock exchange allows citizens to invest in any market sector, such as:**

  1. Food
  2. Clothing
  3. Petroleum

- **Smart investors** will research multiple companies before deciding which one to invest in.
- They **analyze** markets to see which companies' stocks go up or down.
- They will also be checking to see if the products or services offered are a good fit for them personally.

- **تسمح البورصة المصرية للمواطنين بالاستثمار في أي قطاع من قطاعات السوق، مثل:**

  1. الغذاء.
  2. الملابس.
  3. البترول.

- يبحث المستثمرون الأذكياء عن شركات متعددة قبل تحديد الشركة التي سيقومون بالاستثمار فيها.
- هم يقومون بتحليل الأسواق لمعرفة أسهم الشركات التي ترتفع أو تنخفض.
- ويقومون أيضًا بالتحقُّق من المنتجات أو الخدمات المقدمة لمعرفة ما إذا كانت مناسبة لأهدافهم الاستثمارية الشخصية.



A Broker:

- Is a person who handles the buying and selling of shares.
- In traditional settings, an investor will have a broker.

- **الوسيط:** هو الشخص الذي يتولى شراء وبيع الأسهم.
- في الأوضاع التقليدية، يعتمد المستثمر على وسيط.

E-trading:

- Electronic financial trading (**e-trading**) has made the process of buying and selling shares more efficient.
- It provides the investor with more authority.
- With the spread of the internet, electronic trading platforms are now common places.
- It allows the investor to make trades on their own through websites or applications.
- While investors can still use a broker, **e-trading** allows more independence and user-friendly options.
- **Robo-advisors:** Are online applications that provide financial guidance and services.
- E-trading provides access to many people who otherwise might not be able to invest.
- It is also easier and faster for different companies to trade with one another, no matter where they are located.

- التداول المالي الإلكتروني جعل عملية بيع وشراء الأسهم أكثر كفاءة.
- يُوفِّر التداول الإلكتروني للمستثمر المزيد من السُّلطة.
- مع انتشار الإنترنت، أصبحت منصات التداول الإلكترونية شائعة الآن.
- يسمح التداول المالي الإلكتروني للمستثمر بإجراء عمليات التداول بنفسه من خلال المواقع الإلكترونية أو التطبيقات.
- بالرغم من إمكانية المستثمرين استخدام الوسيط، فإن التجارة الإلكترونية تتيح المزيد من الاستقلالية وبدائل سهلة الاستخدام.
- **المستشارون الآليون:** هي تطبيقات عبر الإنترنت تُوفِّر التوجيه والخدمات المالية.
- يُوفِّر التداول المالي الإلكتروني فرصة الاستثمار إلى العديد من الأشخاص الذين قد لا يستطيعون الاستثمار.
- كما أنه من الأسهل والأسرع للشركات المختلفة تنفيذ الصفقات مع بعضها، بغض النظر عن مكان تواجدها.



Exercises on Lesson 5

1 Choose the correct answer:

1. Books whose authors have been deceased for 50 years are ....
   a. copyrighted b. in public domain c. creative commons
2. .... refers to works that have been granted permission to be shared by the creator.
   a. Creative Commons b. Public domain c. Copyright
3. Egypt considers works to be in the public domain if the creator has been deceased for at least ....
   a. 5 years b. 50 months c. 50 years
4. A/An.................... is a market where buyers and sellers deal in units of company stocks.
   a. online shopping b. stock exchange c. supermarket
5. Smart investors .... the company before investing in it.
   a. research b. buy c. sell
6. On stock exchanges, stocks are called ....
   a. money b. shares c. e-commerce
7. A/An .... is a person who handles the buying and selling of shares.
   a. investor b. broker c. hacker
8. E-trading has made the process of buying and selling shares more ....
   a. difficult b. expensive c. efficient
9. In traditional settings, an investor will have a ....
   a. broker b. bank teller c. instructor
10. .... are online applications that provide financial guidance and services.
   a. Social media platforms b. Video games c. Robo-advisors
11. .... has made the process of buying and selling shares more efficient.
   a. E-learning b. E-trading c. E-commerce

2 Put (✓) or (✗):

1. Copyright only covers written material. ( )
2. Intellectual property rights do protect someone's invention or creation, from being copied by others. ( )
3. Materials in the Egyptian Knowledge Bank (EKB) need permission for use. ( )
4. A stock exchange is a place where people can buy and sell shares of companies. ( )
5. Creative Commons refers to works that the creator has granted permission to share. ( )
6. In Egypt, a work enters the public domain 50 years after the creator's death. ( )
7. The Egyptian stock exchange allows citizens to invest in any market sector. ( )
8. Smart investors invest in the first company they find without doing any research. ( )
9. E-trading allows investors more independence. ( )
10. Investors should check the products or services offered by a company before investing. ( )
11. The internet helps electronic trading platforms to be common places. ( )
12. Investors do not need to analyze markets before making investments.( )

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 Robo-advisors	a. made the process of buying and selling shares more efficient.
2 E-trading	b. is a person who handles the buying and selling of shares.
3 A stock exchange	c. are online applications that provide financial guidance and services.
4 A broker	d. includes written, visual, audio, video, and web material.
5 Copyright	e. is a market where buyers and sellers deal in units of company stocks.

1 .... 2 .... 3 .... 4 .... 5 ....

Lesson 6 Cloud Storage of Files

Cloud computing

» It is the **on-demand** storing and accessing of data and programs via remote servers on the internet.

• **الحوسبة السحابية:**

هي تقنية متوفرة عند الطلب تُستخدم لتخزين البيانات والبرامج والوصول إليها عبر خوادم بعيدة على الإنترنت.

» Cloud computing enables users to access files and data easily and conveniently from anywhere and at any time.

• الحوسبة السحابية تُمكِّن المستخدمين من الوصول إلى الملفات والبيانات بسهولة ويُسر من أي مكان وفي أي وقت.

Examples of Cloud Computing:

❶ Microsoft 365	❷ Google
» With its application **OneDrive**	» With its application **Google Drive** 

Remote Servers

» Connect users who are not on the local area network (LAN) to access and manage data, files, and applications via the internet.

• **الخوادم البعيدة:** تقوم بتمكين المستخدمين غير المتصلين بالشبكة المحلية (LAN) من الوصول إلى البيانات والملفات والتطبيقات وإدارتها عبر الإنترنت.

The Advantages and Disadvantages of Cloud Computing

Advantages



1. It frees up space on your devices by using cloud storage services.
2. It allows you to log in and access your files from multiple devices, as long as you have internet service.
3. It provides a **backup** for your files.
4. It provides an extra layer of security by offering password-protected data storage and **data encryption**.
5. It allows you to directly share files with authorized users.

مزايا الحوسبة السحابية:

1. تقوم بتوفير مساحة على أجهزتك عن طريق استخدام خدمات التخزين السحابية.
2. تسمح لك بتسجيل الدخول والوصول إلى ملفاتك من أجهزة متعددة، طالما أن لديك خدمة الإنترنت.
3. توفر نسخة احتياطية لملفاتك.
4. توفر طبقة إضافية من الأمان من خلال خاصية تخزين البيانات المحمية بكلمة مرور وتشفير البيانات.
5. تسمح لك بمشاركة الملفات مباشرة مع المستخدمين المعتمدين.

Disadvantages

1. It requires you to have an internet connection. If you lose your internet connection, you won't be able to access files that are only stored in the cloud.
2. Cloud storage is often a **fee-based** service. If you want to store files, you will need to pay a fee. The **more storage** you require, **the higher the fee** you will pay.
3. If the cloud service you are using is a victim of a **data breach**, you may become a victim as well, as your information may be compromised. However, while there is a small risk, cloud services are overall **extremely safe** and secure.

عيوب الحوسبة السحابية:

1. تتطلَّب أن يكون لديك اتصال بالإنترنت. إذا فقدت اتصالك بالإنترنت، فلن تتمكَّن من الوصول إلى الملفات المُخزَّنة فقط في السحابة.
2. غالبًا ما يكون التخزين السحابي خدمة مقابل رسوم. إذا كنت ترغب في تخزين الملفات، فسوف تحتاج إلى دفع رسوم. وكلما زادت سعة التخزين التي تحتاجها، زادت الرسوم التي ستدفعها.
3. إذا كانت الخدمة السحابية التي تستخدمها ضحية لاختراق البيانات، فقد تصبح أنت أيضًا ضحية؛ حيث قد تتعرَّض معلوماتك للخطر. ومع ذلك، على الرغم من وجود خطر بسيط، إلا أن الخدمات السحابية آمنة للغاية بشكل عام.



Data Encryption: It converts data into a code to prevent unauthorized user access.

تشفير البيانات: تقوم بتحويل البيانات إلى رمز لمنع الوصول غير المصرح به للمستخدم.

Data Breach: It occurs when unauthorized parties gain access to confidential data and information.

اختراق البيانات: يحدث عندما تتمكَّن أطراف غير مصرح لها من الوصول إلى البيانات والمعلومات السرية.



The role of cloud computing in storing files

- Having a **document management system** allows you to organize your documents so you can find them easily and quickly.
- Create separate folders for different types of data, like photos, videos, audio files, and documents.
- Separate school and personal information, with one folder for each.
- Label folders and subfolders dearly to find what you are looking for easily.
- Consider keeping separate folders depending on the file type, such as videos, photos, audio files, and text documents.

دور الحوسبة السحابية في تخزين الملفات

- وجود نظام لإدارة المستندات يتيح لك تنظيم مستنداتك؛ بحيث تستطيع العثور عليها بسهولة وسرعة.
- أنشئ مجلدات منفصلة لأنواع مختلفة مثل: الصور ومقاطع الفيديو والملفات الصوتية والمستندات.
- افصل بين المعلومات المدرسية والمعلومات الشخصية، بإنشاء مجلد واحد لكل منهما.
- قم بتسمية المجلدات والمجلدات الفرعية بوضوح؛ ليسهل العثور على ما تبحث عنه.
- فكِّر في الاحتفاظ بمجلدات منفصلة حسب نوع الملف، مثل: مقاطع الفيديو والصور والملفات الصوتية والمستندات النصية.

Strong Passwords

- Create strong passwords for files and take necessary security measures.
- Be sure to use a strong password for any account you have on a cloud storage platform, including Multi-Factor Authentication (MFA) for additional security.
- All the large and reputable cloud storage services offer MFA.

كلمات المرور القوية

- أنشئ كلمات مرور قوية للملفات، واتخذ الإجراءات الأمنية اللازمة.
- تأكَّد من استخدام كلمة مرور قوية لأي حساب لديك على منصة التخزين السحابية، بما في ذلك المصادقة متعددة العوامل (MFA) لمزيد من الأمان.
- جميع خدمات التخزين السحابية الكبيرة وذات السمعة الطيبة تُقدِّم خاصية المصادقة متعددة العوامل (MFA).

Exercises on Lesson 6

1 Choose the correct answer:

1. .... is the on-demand storing and accessing of data and programs via remote servers on the internet.
   a. Data encryption b. Data breach c. cloud computing
2. Cloud computing provides an extra layer of security by offering ....
   a. data compression b. data encryption c. data replication
3. Cloud storage is often a .... service.
   a. free-based b. fee-based c. limited-based
4. .... connect(s) users who are not on the LAN to access and manage data, files, and applications via the internet.
   a. Remote servers b. OneDrive c. Microsoft 365
5. .... converts data into a code to prevent unauthorized user access.
   a. Data breach b. Data theft c. Data encryption
6. .... is/are example of cloud computing.
   a. Google Drive b. OneDrive c. both a and b
7. .... occurs when unauthorized parties gain access to confidential data and information.
   a. Data breach b. Data theft c. Data encryption
8. .... provides a backup for your files.
   a. Cloud computing b. Social media c. Web browser
9. .... enable(s) users to access files and data easily from anywhere and at any time.
   a. Remote servers b. Cloud computing c. Data encryption
10. The more cloud storage you require, the .... the fee you will pay.
    a. higher b. lower c. same
11. Cloud services are overall .... safe and secure.
    a. moderate b. extremely c. less

12 A .... system allows you to organize your documents.
a. database b. document management c. Microsoft

13 All the large and reputable cloud storage services offer ....
a. free storage b. unlimited storage c. MFA

2 Put (✓) or (✗):

1 You can access files stored in the cloud even without an internet connection. ( )

2 Cloud computing is a way to store files and data on a remote server and access them over the internet. ( )

3 Be sure to create a strong password for your files on the computing cloud. ( )

4 Cloud computing provides a backup for your files. ( )

5 Cloud storage services are always free. ( )

6 Examples of cloud computing include Google Drive, OneDrive, and Google Chrome. ( )

7 Data encryption converts data into code to prevent unauthorized access. ( )

8 Cloud computing does not offer any form of security for your data. ( )

9 Cloud computing can help protect data from breaches by encrypting data. ( )

10 Despite a small risk, cloud services are overall extremely safe and secure. ( )

11 Cloud computing requires an internet connection. ( )

12 A document management system does not help organize your documents. ( )

13 MFA is a security measure that requires users to provide two or more factors of authentication when logging into their accounts. ( )

14 A data breach occurs when authorized parties gain access to confidential data and information. ( )

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 Remote servers	a. it occurs when unauthorized parties gain access to confidential data
2 Data breach	b. is an example on cloud computing
3 Data encryption	c. connect users who are not on LAN to access and manage data, files, and applications via the internet.
4 Microsoft 365	d. is often a fee-based service.
5 Cloud storage	e. it converts data into a code to prevent unauthorized user access.

1 .... 2 .... 3 .... 4 .... 5 ....

Lesson 7 Cloud Computing Applications

- Cloud computing is storing and accessing data or programs through the internet.

• تقوم الحوسبة السحابية بتخزين البيانات أو البرامج والوصول إليها عبر الإنترنت.

Microsoft 365 and Google Workspace

- Microsoft 365 and Google Workspace are the **most popular** software programs that deal with **cloud computing** applications. Both platforms include productivity apps and storage.
- Microsoft 365 offers a whole suite of productivity apps, **such as** Microsoft Teams, Word, Excel, and PowerPoint.
- Microsoft 365 email platform is **Outlook.**
- Microsoft 365 storage application is **OneDrive**.
- In summary, this platform provides everything you need.

• يعد Microsoft 365 وGoogle Workspace من أشهر البرامج التي تتعامل مع تطبيقات الحوسبة السحابية، يتضمن كلا النظامين تطبيقات الإنتاجية والتخزين.
• يقدم Microsoft 365 مجموعة كاملة من تطبيقات الإنتاجية مثل: Microsoft Teams وWord وExcel وPowerPoint.
• نظام البريد الإلكتروني الخاص بـ Microsoft 365 هو Outlook.
• تطبيق التخزين الخاص بـ Microsoft 365 هو OneDrive.
• باختصار، تُوفِّر هذه المنصة كل ما تحتاجه.



1 Microsoft Word



- When you select Microsoft Word, it opens up a new blank document that allows you to draft ideas, a story, or an assignment.

• عند اختيار مايكروسوفت وورد، فإنه يفتح مستندًا فارغًا جديدًا يسمح لك بصياغة أفكار أو قصة أو مهمة.

2 PowerPoint



- PowerPoint can help you create a presentation.

• يمكن أن يساعدك تطبيق PowerPoint في إنشاء عرض تقديمي.

3 OneDrive



- OneDrive can help you share work with your friends.
- OneDrive allows you to store, share, and access files from any device.
- It is very user-friendly.
- You upload your files and then click on the **Share** option to share them with others.
- You can decide what level of access each person you share with gets, whether it's for viewing purposes only or editing.

• يمكن أن يساعدك OneDrive في مشاركة العمل مع أصدقائك.

• يتيح لك OneDrive تخزين الملفات ومشاركتها والوصول إليها من أي جهاز.

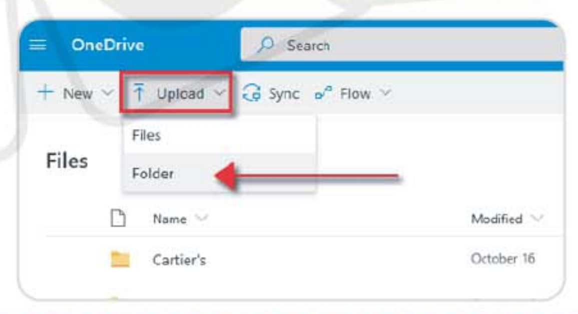
• إنه سهل الاستخدام للغاية.

• تقوم بتحميل ملفاتك ثم تضغط على خيار المشاركة؛ لمشاركتها مع الآخرين.

• يمكنك تحديد مستوى الوصول الذي يحصل عليه كل شخص تشاركه معه، سواء كان ذلك لأغراض العرض فقط أو التحرير.

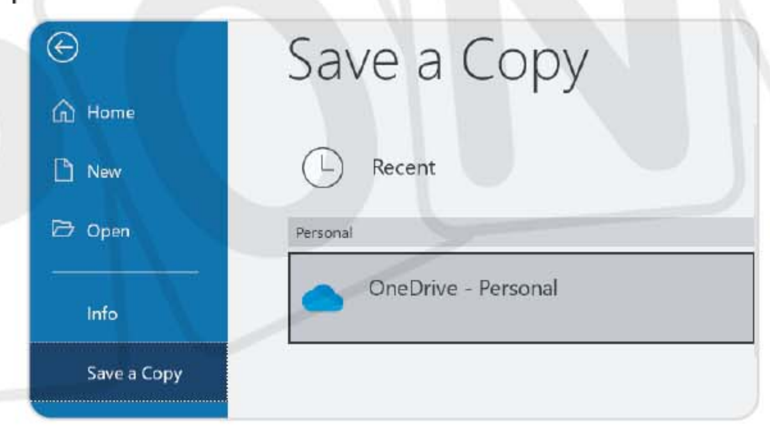
How to upload files or folders to OneDrive

1. In Chrome,
   - Sign in the **Microsoft Office**.
   - Select **OneDrive**.
2. Select **Upload** >> Files ,or
   Upload >> Folder.
3. Select the files or folder you want to upload.
4. Select Open or Select Folder.



How to save a file to OneDrive

1. Select **File** >> **Save a Copy** > OneDrive - Personal/Company.
2. Select **Enter file name here** and type a name.
3. Select **Save**.
4. You will then see the file in your OneDrive, the next time you open the Office app.



Exercises on Lesson 7

1 Choose the correct answer:

1. .... is storing and accessing data or programs through the internet.
   a. Web hosting b. Database c. Cloud computing
2. The email platform of Microsoft 365 is ....
   a. Gmail b. Outlook c. Yahoo
3. .... is/are the most popular software that deal with cloud computing applications.
   a. Microsoft 365 b. Google Workspace c. both a and b
4. To save a file to OneDrive, open .... menu, then select Save a Copy.
   a. File b. Insert c. Edit
5. .... is the Microsoft 365 storage application.
   a. Google Drive b. OneDrive c. Outlook
6. You can use OneDrive to upload ....
   a. files b. folders c. both a and b
7. After uploading your files on OneDrive, you can click on the .... option to share a file with your friends.
   a. Share b. Open c. Insert
8. The Microsoft 365 suite includes ....
   a. MS Word b. Microsoft Teams c. both a and b
9. When you select Microsoft Word, it opens ....
   a. new browser b. blank document c. online storage
10. .... is a Microsoft program that can help you create a presentation.
    a. PowerPoint b. Word c. OneDrive

11 .... is a Microsoft program that can help you share your work with your friends.

a. Word b. PowerPoint c. OneDrive

12 To upload a file or folder on OneDrive, you should first .... Microsoft office.

a. download b. sign in c. share

2 Put (✓) or (✗):

1 OneDrive allows you to store, share, and access files from any device. ( )

2 OneDrive is complicated and difficult to use. ( )

3 To access OneDrive, users must have a Microsoft account. ( )

4 Microsoft Word is used to create presentations. ( )

5 Cloud computing is storing and accessing data through the internet. ( )

6 OneDrive is a Google Workspace storage application. ( )

7 Microsoft 365 and Google Workspace do not include productivity apps. ( )

8 Gmail is the email platform for Microsoft 365. ( )

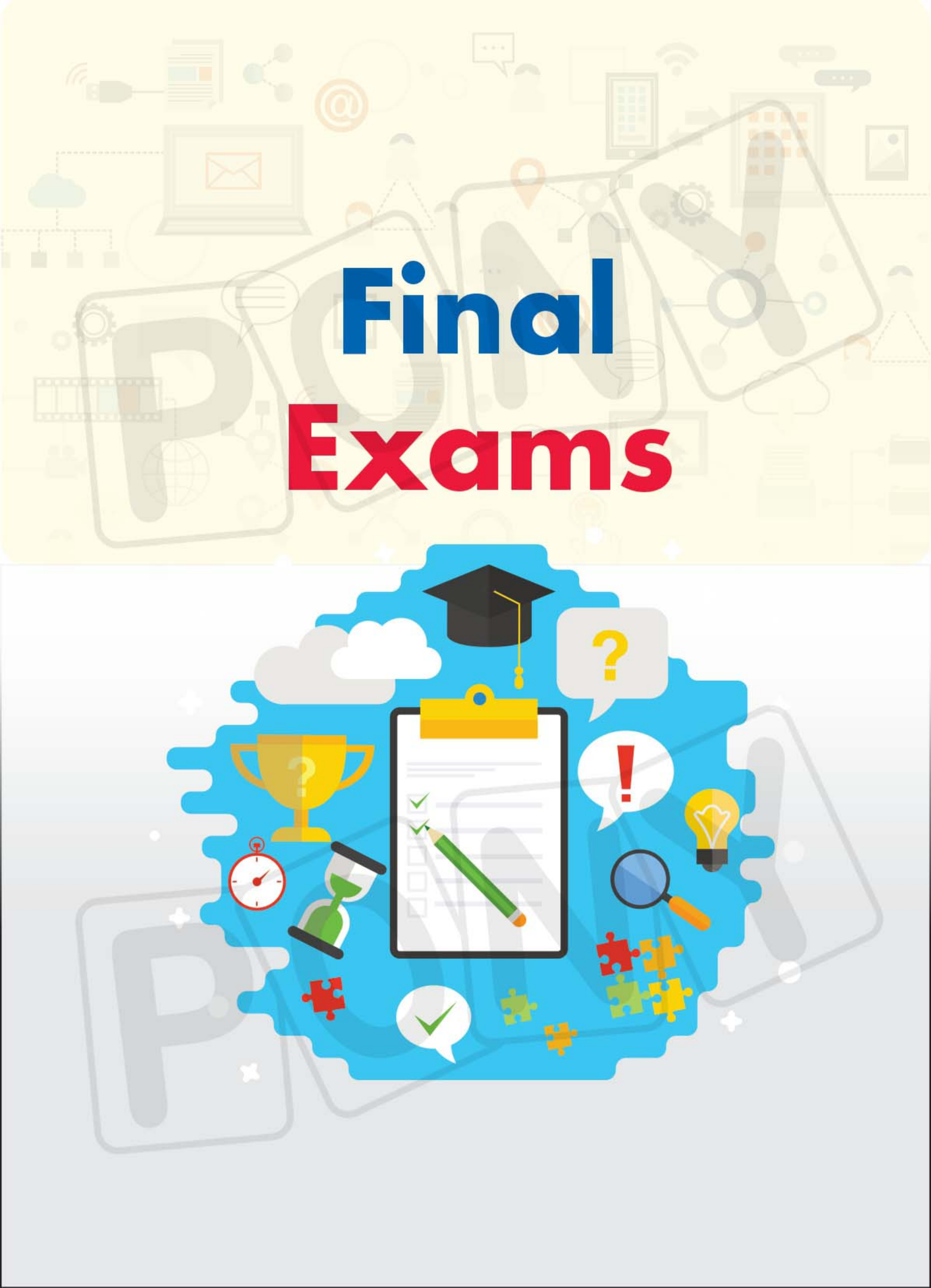
9 Microsoft 365 provides everything you need. ( )

10 Google Workspace is not popular software that deals with cloud computing. ( )

11 To upload files or folders to OneDrive, you need to sign in to Microsoft Office first. ( )

12 You can set each person's access level for sharing, either view-only or with editing rights. ( )

13 Using the Word program, you can draft ideas, a story, or an assignment. ( )


Final
Exams

Model Exam 1

1 Choose the correct answer:

1. On stock exchanges, stocks are called ....
   a. money b. shares c. e-commerce
2. .... is the on-demand storing and accessing of data and programs via remote servers on the internet.
   a. Data encryption b. Data breach c. Cloud computing
3. Augmented reality shows a .... model of what looks like the real world.
   a. 2-D b. 3-D c. invisible
4. All of the following are operating systems, except ....
   a. Android b. Linux c. the CPU
5. The .... tag is used to create the largest heading in HTML.
   a. <h1> b. <h6> c. <L1>

2 Put (✓) or (✗):

1. Good digital citizens post others' ideas as their own. ( )
2. Programs that convert speech to text and vice versa are a type of assistive technology. ( )
3. Gmail is the email platform for Microsoft 365. ( )
4. User experience describes how people use and evaluate a product. ( )
5. It is not necessary to report the threats to trusted people. ( )

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 Data encryption	a. connects the computer to the internet.
2 Screen readers	b. a network device that pass data to a specific device.
3 A switch	c. converts data into code to prevent unauthorized user access.
4 Spoofing	d. cyber criminals pretend to be a business or a known person to trick you.
5 A router	e. help blind people by converting text to audio.

1 .... 2 .... 3 .... 4 .... 5 ....

Model Exam 2

1 Choose the correct answer:

1. Passwords that contain at least 8 characters are ....
   a. useless b. less secure c. more secure
2. .... connect(s) users who are not on the LAN to access and manage data, files, and applications via the internet.
   a. Remote servers b. OneDrive c. Microsoft 365
3. If the product is practical and meets customer needs, the user experience will be ....
   a. positive b. negative c. neutral
4. You can use the shortcut .... to copy text or image in windows.
   a. "Ctrl + c" b. "Cmd + c" c. "Ctrl + x"
5. .... refers to works that have been granted permission to be shared by the creator.
   a. Creative Commons b. Public domain c. Copyright

2 Put (✓) or (✗):

1. Spoofing is the greatest cyber security threat. ( )
2. Microsoft Word is used to create presentations. ( )
3. The Uber app uses artificial intelligence to match riders with available drivers. ( )
4. Anyone can read and modify the code in closed-source software. ( )
5. Electronic games can be fun, but they impact health. ( )

3 Complete the following using the words between the brackets:

(Microsoft 365 – User experience – Smartgloves – being depressed – sleep cycle)

1. .... empower deaf people to translate their signs in real time to spoken or text output.
2. Playing electronic games too much can affect your ....
3. .... is an example of cloud computing.
4. One of the psychological dangers of electronic games is ....
5. .... is how to use the product and interact with it.

Model Exam 3

1 Choose the correct answer:

1. If you've been hacked on your Instagram account, it is better to change ....
   a. Instagram password b. all accounts passwords
   c. none of them
2. .... is an open-source software for building robot applications.
   a. iOS b. ROS c. Android
3. .... confirms your identity by scanning your thumb.
   a. Fingerprint authentication b. Facial recognition c. A password
4. .... occurs when unauthorized parties gain access to confidential data and information
   a. Data breach b. Data theft c. Data encryption
5. A fake domain pretending to be a business is an example of ....
   a. malware b. spoofing c. virus

2 Put (✓) or (✗):

1. HTML tags have three main parts ( )
2. The EKB is an example of a general search engine. ( )
3. Computers can learn by analyzing the provided examples. ( )
4. OneDrive is complicated and difficult to use. ( )
5. Copyright only covers written material. ( )

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 Cloud storage	a. covers only one subject, such as business or law.
2 Creative Commons	b. protects printed and digital content.
3 Subject database	c. a person who handles the buying and selling of shares.
4 A broker	d. means creators give permission to share their works.
5 Copyright law	e. is often a fee-based service.

1 .... 2 .... 3 .... 4 .... 5 ....

Model Exam 4

1 Choose the correct answer:

1. .... runs a computer's software and hardware.
   a. Operating system b. The CPU c. Hardware
2. .... converts data into code to prevent unauthorized user access.
   a. Data breach b. Data theft c. Data encryption
3. .... combines the real world with a virtual world by adding images using computers.
   a. Augmented reality b. Artificial intelligence c. Virtual reality
4. A poem written in 1900 is ....
   a. copyrighted b. not copyrighted c. both a and b
5. Wired networks connect devices using ....
   a. Wi-Fi b. radio waves c. cables

2 Put (✓) or (✗):

1. It is important to balance between online and offline activities. ( )
2. Despite a small risk, cloud services are overall extremely safe and secure. ( )
3. If you are a victim of data theft, there is no need to report the theft. ( )
4. The Egyptian stock exchange allows citizens to invest in any market sector. ( )
5. Scareware tells you to click on the link to remove it, but the link is a virus. ( )

3 Complete the following using the words between the brackets:

(Robo-advisors – <h1> – Data breach – Scareware – eye strain)

1. .... occurs when unauthorized parties gain access to confidential data.
2. .... is used to create largest heading in HTML .
3. .... is a type of malware that pretends to be a virus alert.
4. .... are online applications that provide financial guidance and services.
5. Playing online games too often can cause ....

Model Exam 5

1 Choose the correct answer:

1. .... is a virtual 3-D environment that allows users to explore and interact with the surroundings, as if it were reality.
   a. Virtual reality b. Artificial intelligence
   c. Augmented Reality
2. .... scans your face using the device's camera to confirm your identity.
   a. Fingerprint authentication b. Facial recognition c. Full disk
3. .... is an open-source operating system for mobile devices.
   a. Android b. iOS c. macOS
4. .... is the Microsoft 365 storage application.
   a. Google Drive b. OneDrive c. Outlook
5. If you are exposed to cyber security threat, you should .... it.
   a. ignore b. accept c. report
6. To make the text bold in HTML, you can use the .... tag.
   a. <bold> b. <s> c. <strong>
7. .... is a market where buyers and sellers deal in units of company stocks.
   a. Online shopping b. Stock exchange c. Supermarket

2 Put (✓) or (✗):

1. Cloud storage services are always free. ( )
2. Routers work as gateways that connect your device to ISP. ( )
3. It is responsible to leave your devices at risk without protection. ( )
4. Electronic games can make some people anxious and depressed. ( )
5. Copyright includes only books, music, and videos. ( )
6. In HTML, the <i> tag is used to display text in italics. ( )
7. Linux is the most popular operating system all over the world. ( )
8. Switches are used to connect computers to the ISP. ( )

Model Exam 6

1 Choose the correct answer:

1. .... is the greatest cyber security threat.
   a. Malware b. Anti-virus c. Firewall
2. Sharing your friend's photos without their permission is .... behavior.
   a. responsible b. irresponsible c. safe
3. To upload a file or folder on OneDrive, you should first .... Microsoft office.
   a. download b. sign in c. share
4. The following HTML tags are correct, except ....
   a. <a> .... b. <i> .... </i> c. </p> .... <p>
5. .... a virtual 3D environment for users to explore and interact as if it were reality.
   a. Virtual reality b. Artificial intelligence c. Assistive technology

2 Put (✓) or (✗):

1. Egypt established the Data Protection Law to protect its citizens. ( )
2. The ability of the computer to think and learn is called AR. ( )
3. Examples of cloud computing include Google Drive, OneDrive, and Google Chrome. ( )
4. E-trading allows more independence for investors. ( )
5. There is no difference between augmented reality and virtual reality. ( )

3 Complete the following using the words between the brackets:

(MFA - Stock exchange - aggressive – Remote servers – Wired networks)

1. .... connect devices using physical cables.
2. Some electronic games promote violence and can make some people ....
3. .... requires at least two ways of identifying yourself.
4. .... connect users who are not on LAN to access and manage data, files, and applications via the internet.
5. .... is a market where buyers and sellers deal in units of company stocks.

Model Exam 7

Choose the correct answer:

1. .... are group of people or things that are connected to each other.
   a. Servers b. Networks c. Hubs
2. .... is computer apps that perform complex tasks that simulate the thinking and performance of the human element.
   a. Artificial intelligence b. Augmented reality c. Remote sensors
3. The latest version of service or product is called .... technology.
   a. assistive b. cutting-edge c. virtual
4. .... is a closed-source operating system for mobile devices.
   a. Android b. Apple iOS c. Windows
5. VR headset blocks out the .... world(s) and provides views that immerse the user in another world.
   a. real b. virtual c. both of them
6. .... is a cloud storage provided by Microsoft for accessing files anywhere.
   a. Collections b. Favorites bar c. OneDrive
7. The email platform of Microsoft 365 is ....
   a. Gmail b. Outlook c. Yahoo
8. .... empower deaf people to translate their signs to spoken or text output.
   a. Hearing aids b. Screen reader c. Smartgloves
9. Large gaming communities are filled with ....
   a. cyberbullies b. doctors c. both a and b
10. To create the smallest heading in HTML, use the .... tag.
    a. <h1> b. <h6> c. <S1>
11. .... software means that it can't be seen or changed by the public.
    a. Open-source b. Closed-source c. Both of them
12. Egypt considers works in the public domain after .... of the creator's death.
    a. 5 years b. 50 months c. 50 years.
13. .... database covers only one subject, such as business or law.
    a. General b. Subject c. Electronic
14. Complicated and hard-to-use products result in .... user experiences.
    a. positive b. negative c. neutral
15. Visually impaired people can use .... to see their family members up close.
    a. augmented Reality b. artificial intelligence c. hearing aids

Model Exam 8

1 Choose the correct answer:

1. Word prediction on smartphones is an example of ....
   a. artificial intelligence b. augmented reality c. virtual reality
2. .... is a Microsoft application that can help you share works with your friends.
   a. Word b. PowerPoint c. OneDrive
3. To use images, videos, or infographics of someone, you should ....
   a. ignore the owner b. share them without permission
   c. ask for permission
4. .... is a device that connects a local area network (LAN) to the internet.
   a. Artificial intelligence b. A modem c. A server
5. E-trading has made the process of buying and selling shares more ....
   a. difficult b. expensive c. efficient

2 Put (✓) or (✗):

1. You should use weak passwords to protect your data ( )
2. E-trading platforms are now common places. ( )
3. Without HTML tags, a screen reader stops after every element. ( )
4. Virtual reality is a virtual 2-D environment that allows users to explore and interact with the surroundings. ( )
5. macOS is the operating system used by 90% of the world's computers. ( )

3 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 MFA	a. it is used to make text bold in HTML.
2 <strong>	b. stands for Hyper Text Markup Language.
3 VR headset	c. requires at least two ways of identifying yourself.
4 HTML	d. is an operating system for Apple computers.
5 macOS	e. is used to experience virtual reality.

1 .... 2 .... 3 .... 4 .... 5 ....

Model Exam 9

1 Choose the correct answer:

1. .... runs a computer software and hardware.
   a. Windows explorer b. Operating system c. CPU
2. .... converts the digital text into audio to help blind people.
   a. Brille terminal b. Screen reader c. Screen magnifier
3. To make the images accessible on web pages, add .... to <img> in HTML.
   a. alt-text b. meta c. title
4. .... scrambles your data and requires a password to access it.
   a. Full disk encryption b. Facial recognition c. Both a and b
5. .... can imitate sounds when provided with the tone of voice of an actual human being.
   a. Augmented reality b. Artificial intelligence c. Switches

2 Put (✓) or (✗):

1. You should play a lot of electronic games to fall asleep right away. (   )
2. OneDrive is a Google Workspace storage application. (   )
3. The internet helps electronic trading platforms to be common places. (   )
4. You can access files stored in the cloud even without an internet connection. (   )
5. Strong passwords contain letters, numbers, and special characters. (   )

3 Complete the following using the words between the brackets:

(ROS – Facial recognition – E-trading – MFA – Programming languages)

1. .... made the process of buying and selling shares more efficient.
2. .... is an open source operating system that is used for building robot applications.
3. .... are instructions to a computer are given in code.
4. .... scans your face using your device's camera to confirm your identity.
5. .... stands for Multi-factor Authentication.

Model Exam 10

1 Choose the correct answer:

1. .... are collections of information stored in a computer system.
   a. Search results b. Databases c. Software
2. A cardboard VR headset is a/an .... way to experience VR on a smartphone.
   a. expensive b. inexpensive c. difficult
3. The HTML tag that is used to create a paragraph is ....
   a. <h> b. <a> c. <p>
4. .... networks connect devices using Wi-Fi.
   a. Wired b. Wireless c. Both of them
5. The most popular operating system for mobile worldwide is ....
   a. Windows b. Android c. Apple iOS

2 Put (✓) or (✗):

1. Creative commons means the creator has been deceased for at least 50 years. (   )
2. You can press "Ctrl + c" to cut text or an image in Windows. (   )
3. Virtual reality allows you to explore world museums from home. (   )
4. Artificial intelligence (AI), augmented reality (AR), and virtual reality (VR) are examples of cutting-edge technology. (   )
5. General databases provide information on a specific topic. (   )

3 Complete the following using the words between the brackets:

(Smartgloves - Wireless network - Assistive technology - <a> - modem)

1. .... helps people of determination in their daily works
2. .... is a tag that is used to create a hyperlink in HTML.
3. .... connect devices without wiring by using Wi-Fi.
4. .... translate sign language to spoken or text output.
5. A .... converts the signal from ISP into a digital signal.

Model Answers

Theme 1

Lesson 1

1
1 c | 2 b | 3 a | 4 b
5 b | 6 c | 7 b | 8 c
9 b | 10 a | 11 a | 12 b
13 c | 14 b

2
1 ✓ | 2 ✓ | 3 ✗ | 4 ✗
5 ✓ | 6 ✓ | 7 ✓ | 8 ✓
9 ✓ | 10 ✓ | 11 ✗ | 12 ✓
13 ✓

3
1 Artificial Intelligence
2 Bemyeyes.com | 3 graph
4 screen reader | 5 I-Stem

Lesson 2

1
1 b | 2 a | 3 c | 4 b
5 c | 6 b | 7 c | 8 a
9 a | 10 b

2
1 ✓ | 2 ✗ | 3 ✗ | 4 ✗
5 ✓ | 6 ✓ | 7 ✓ | 8 ✗
9 ✓ | 10 ✓ | 11 ✓ | 12 ✓

3
1 Wired | 2 specific
3 Router | 4 intelligent
5 AI

4
1 d | 2 a | 3 e | 4 b
5 c

Theme 2

Lesson 1

1
1 a | 2 b | 3 a | 4 c
5 b | 6 a | 7 a | 8 b
9 c | 10 a | 11 b | 12 a
13 b | 14 c | 15 c | 16 a

2
1 ✓ | 2 ✗ | 3 ✓ | 4 ✗
5 ✓ | 6 ✓ | 7 ✓ | 8 ✗
9 ✗ | 10 ✓ | 11 ✗ | 12 ✗
13 ✗ | 14 ✓ | 15 ✓ | 16 ✓
17 ✓

3
1 Explorer | 2 citations
3 Remote sensors | 4 Radars
5 machine learning

Lesson 2

1
1 c | 2 a | 3 b | 4 a
5 a | 6 c | 7 b | 8 c
9 b | 10 c | 11 b | 12 a
13 c

2
1 ✓ | 2 ✓ | 3 ✗ | 4 ✓
5 ✗ | 6 ✓ | 7 ✗ | 8 ✓
9 ✗ | 10 ✓ | 11 ✗ | 12 ✓
13 ✗ | 14 ✗ | 15 ✓

3
1 Cyberbullies | 2 aggressive
3 Back problems | 4 webcam
5 personal information

Lesson 3

1
1 c | 2 b | 3 a | 4 a
5 c | 6 a | 7 b | 8 a
9 a | 10 c | 11 b

2
1 ✗ | 2 ✓ | 3 ✗ | 4 ✗
5 ✗ | 6 ✓ | 7 ✗ | 8 ✓
9 ✓ | 10 ✗ | 11 ✗ | 12 ✓
13 ✗

3
1 e | 2 c | 3 a | 4 b
5 d

Lesson 4

1
1 b | 2 a | 3 c | 4 c
5 c | 6 c | 7 b | 8 a
9 b | 10 c | 11 a

2
1 ✓ | 2 ✗ | 3 ✓ | 4 ✗
5 ✓ | 6 ✓ | 7 ✓ | 8 ✗
9 ✓ | 10 ✗ | 11 ✓ | 12 ✗

3. 1 Malware 2 Scareware 3 Spoofing 4 Anti-virus

Lesson 5

1.
1 b 2 a 3 c 4 b
5 a 6 b 7 b 8 c
9 a 10 c 11 b

2.
1 ✗ 2 ✓ 3 ✗ 4 ✓
5 ✓ 6 ✓ 7 ✓ 8 ✗
9 ✓ 10 ✓ 11 ✓ 12 ✗

3.
1 c 2 a 3 e 4 b
5 d

Lesson 6

1.
1 c 2 b 3 b 4 a
5 c 6 c 7 a 8 a
9 b 10 a 11 b 12 b
13 c

2.
1 ✗ 2 ✓ 3 ✓ 4 ✓
5 ✗ 6 ✗ 7 ✓ 8 ✗
9 ✓ 10 ✓ 11 ✓ 12 ✗
13 ✓ 14 ✗

3.
1 c 2 a 3 e 4 b
5 d

Lesson 7

1.
1 c 2 b 3 c 4 a
5 b 6 c 7 a 8 c
9 b 10 a 11 c 12 b

2.
1 ✓ 2 ✗ 3 ✓ 4 ✗
5 ✓ 6 ✗ 7 ✗ 8 ✗
9 ✓ 10 ✗ 11 ✓ 12 ✓
13 ✓

Final Exams

Model Exam 1

1.
1 b 2 c 3 b 4 c
5 a

2.
1 ✗ 2 ✓ 3 ✗ 4 ✓
5 ✗

3.
1 c 2 e 3 b 4 d
5 a

Model Exam 2

1.
1 c 2 a 3 a 4 a
5 a

2.
1 ✗ 2 ✗ 3 ✓ 4 ✗
5 ✓

3.
1 Smartgloves
2 sleep cycle
3 Microsoft 365
4 being depressed
5 User experience

Model Exam 3

1.
1 b 2 b 3 a 4 a
5 b

2.
1 ✓ 2 ✗ 3 ✓ 4 ✗
5 ✗

3.
1 e 2 d 3 a 4 c
5 b

Model Exam 4

1
1 a 2 c 3 c 4 b
5 c

2
1 ✓ 2 ✓ 3 ✗ 4 ✓
5 ✓

3
1 Data breach
2 <h1>
3 Scareware
4 Robo-advisors 5 eye strain

Model Exam 5

1
1 a 2 b 3 a 4 b
5 c 6 c 7 b

2
1 ✗ 2 ✓ 3 ✗ 4 ✓
5 ✗ 6 ✓ 7 ✗ 8 ✗

Model Exam 6

1
1 a 2 b 3 b 4 c
5 a

2
1 ✓ 2 ✗ 3 ✗ 4 ✓
5 ✗

3
1 Wired networks 2 aggressive
3 MFA
4 Remote servers
5 Stock exchange

Model Exam 7

1 b 2 a 3 b 4 b
5 a 6 c 7 b 8 c
9 a 10 b 11 b 12 c
13 b 14 b 15 a

Model Exam 8

1
1 a 2 c 3 c 4 b
5 c

2
1 ✗ 2 ✓ 3 ✗ 4 ✗
5 ✗

3
1 c 2 a 3 e 4 b
5 d

Model Exam 9

1
1 b 2 b 3 a 4 a
5 b

2
1 ✗ 2 ✗ 3 ✓ 4 ✗
5 ✓

3
1 E-trading 2 ROS
3 Programming languages
4 Facial recognition
5 MFA

Model Exam 10

1
1 b 2 b 3 c 4 b
5 b

2
1 ✗ 2 ✗ 3 ✓ 4 ✓
5 ✗

3
1 Assistive technology
2 <a> 3 Wireless networks
4 Smartgloves 5 modem

Glossary

Theme 1

Lesson (1)

Artificial intelligence	الذكاء الصناعي	People of determination	ذوو الهمم
Interaction	تفاعل	Expert	خبير
Blind people	مكفوفون	Platform	منصة
Mentorship	توجيه وإرشاد	Convert	يحول
Organization	منظمة	Employees	موظفون
Opportunities	فرص	Integrate	دمج
Voice recognition	التعرُّف على الصوت	Launch	يُطلق
Hearing-impaired	ضعاف السمع	Assist	يساعد - مساعدة
Volunteers	متطوعون	Realistic	حقيقي - واقعي

Lesson (2)

Internet Service Provider (ISP)	مزود خدمة الإنترنت	Human element	عنصر بشري
Specific device	جهاز محدد	Signal	إشارة
Wired networks	شبكات سلكية	Common	شائع أو مشترك
Wireless networks	شبكات لاسلكية	Purpose	غرض
Comprehensive	شامل	Complex	معقد
Sequence	تسلسل	Simulate	يحاكي
Machine	آلة	Imitate	يقلد

Lesson (3)

Immerse	ينغمس	Augmented reality	الواقع المعزز
Surrounding	البيئة المحيطة	Virtual reality	الواقع التخيلي (الافتراضي)
Headset	سماعة الرأس	Interact	يتفاعل
To experience VR	لتجربة VR	Combine	يجمع
Participant	مشارك	Surface	سطح
Cylinder	أسطوانة	Cube	مكعب
Flat	مسطح أو مستوٍ	Ability	قدرة
Predict	يتوقع	Assistant	مساعد
Futuristic Technology	التكنولوجيا المستقبلية	Deduce	يستنتج
Facial recognition	التعرُّف على الوجه		

Glossary

Lesson (4)

Cutting Edge technology	تكنولوجيا حديثة متطورة	Unimaginable	لا يمكن تخيلها
Service	خدمة	Empower	يمكن
Product	منتج	Inclusion	اندماج
Deaf	ضعيف السمع	Education	تعليم
Signs	إشارات	Incredibly varied	تتنوع كثيرًا
Assistive technology	التكنولوجيا المساعدة	Categories	فئات
Desirable	مرغوب فيه	Accessible	سهل الوصول إليه
Valuable product	منتج ذو قيمة	Credible	جدير بالثقة
Trustworthy	جدير بالثقة	Usable	قابلة للاستخدام
Findable	قابلية إيجاد حل	Independence	استقلالية
Improve	يحسن - يطور	Development	تطوير

Lesson (5)

Skills	مهارات	Phrases	عبارات
Newspapers	صحف	Online libraries	مكتبات إلكترونية
User-friendly	سهلة الاستخدام	Magazines	مجلات
Evaluation	تقييم	Collection	مجموعة
Published books	كتب منشورة	Heading	عنوان
Library Catalog	فهرس المكتبة	E-books	كتب إلكترونية

Lesson (6)

Screen resolution	دقة الشاشة	Handheld	محمولة
Landscape	أفقي	Touch	اللمس
Portrait	رأسي	Associated with	مرتبط بـ
Decrease	يقلل	Healthcare	رعاية صحية
Access	يصل إلى	Non-verbal	غير لفظي
Challenges	تحديات	Employment	توظيف

Lesson (7)

Screen magnifiers	مكبرات الشاشة	Include	يتضمّن
Pre-loaded	مُحملة مسبقًا	Perform	يؤدي
The most popular	الأكثر شهرة	Open-source	مفتوح المصدر
Individual	فرد – فردي	Major	رئيسي
Self-driving cars	سيارات ذاتية القيادة	Robot applications	تطبيقات الروبوت
Similarities	التشابهات	Creators	مبدعون
Compatible	متوافق	Machine	آلة

Lesson (8)

HTML	لغة ترميز النص الشعبي	Content	محتوى
Structure	التركيب	Series	سلسلة
Paragraph	فقرة	Elements	عناصر
Subheading	عنوان فرعي	Hyperlink	رابط
Accessibility features	مزايا الوصول	Distinguish	يميز
Catch attention	يجذب الانتباه	Alt-text	النص البديل

Theme 2

Lesson (1)

Archaeology	علم الآثار	Societies	المجتمعات
Geospatial technologies	تقنيات الجغرافيا المكانية	Remote sensing	الاستشعار عن بُعد
Consultant	مستشار	Back up	نسخ احتياطية
Published	منشورة	Simulated	يحاكي
Machine learning	تعلم الآلة	Discoveries	اكتشافات
Excavate	ينقب أو يحفر	Settlements	مستوطنات
Protect	يحمي	Heritage	تراث
Monitor	يراقب	Vehicle	سيارة - مركبة

Lesson (2)

Electronic games	الألعاب الإلكترونية	Creative thinking	التفكير الإبداعي
Encourage	يشجع	Critical thinking	التفكير النقدي
Sleep cycle	دورة النوم	Impact	تأثير
Promote	يعزز	Develop	يطور
Stimulate	يحفز	Prevent	يحمي
Affect	يؤثر	Security	أمان - حماية
Weight gaining	زيادة الوزن	Leak	تسريب
Cyberbullies	المتنمرون عبر الإنترنت	Multiplayers	عدة لاعبين
Stranger	غريب	Anxious	قلق
Hunched	منحني	Depressed	مكتئب
Eye strain	إرهاق العين	Negatively	سلبيًا
Rationally	بعقلانية	Leaked	تسريب
Limits	حدود	Discussions	مناقشات
Encounter	يواجه أو يقابل	Maintaining	المحافظة
Supervision	إشراف		

Lesson (3)

Random	عشوائي	Security codes	رموز الأمان
Identifying yourself	تحديد هويتك	Safety precautions	احتياطات السلامة
Strict	صارم	Data Protection	حماية البيانات
Victims	ضحايا	Law	قانون
Compromised	تعرّض لخطر الاختراق	Proper authorities	السلطات المسئولة
Immediately	فورًا	Data theft	سرقة البيانات

Glossary

Lesson (4)

Appropriate	مناسب	Frequently	بصورة متكررة
Precautions	احتياطات	Accurate	دقيق
Verify	يتحقق	Threats	تهديدات
Problematic	إشكالية – مشكلة	Cautious	حذر
Get tricked	يُخدع	Remove	يزيل
Link	رابط	Fake	مزيف
Criminals	مجرمون	Swift action	إجراءات سريعة
Acquaintance of yours	معارفك	Suspicious	مثير للشك

Lesson (5)

Creative commons	المشاع الإبداعي	Granted permission	منح الإذن
Creator	مبتكر	Public	عام
Buyer	مشترٍ	Market sector	قطاع السوق
Seller	بائع	Virtual market	سوق افتراضي
Company stocks	أسهم الشركة	Investor	مستثمر
Options	بدائل – خيارات	Traditional settings	البيئات التقليدية
User-friendly	سهل الاستخدام	Trades	صفقات
Independence	استقلالية	Guidance	توجيه
Authority	سلطة	Efficient	كفء
Broker	وسيط		

Lesson (6)

Remote servers	الخوادم البعيدة	On-demand	عند الطلب
Manage	يدير	Platforms	منصات
Space	مساحة	Layer	طبقة
Compromised	معرضة لخطر الاختراق	Storage	تخزين
Data breach	اختراق البيانات	Multiple	متعدد
Free up	يُخلي	Fee-based service	خدمة مدفوعة الأجر
Occur	يحدث	Separate	منفصل
Authorized users	مستخدمون مصرح بهم	Organize	ينظم
Reputable	سمعة طيبة		

Lesson (7)

Email platform	منصة البريد الإلكتروني	Productivity	إنتاجية
Whole suite	مجموعة كاملة	Allow	يسمح
Draft	مسودة	Assignment	تكليف
Option	اختيار		